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THE

PRIESTLEY MEMORIAL.



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MEMORIAL STATUE OF DR. PRIESTLEY

AT BIRMINGHAM.



THE

PRIESTLEY MEMORIAL

BIRMINGHAM,

AUGUST, 1874.

LONDON.

LONGMANS, GREEN, READER, AND DYER,

PATERNOSTER ROW.

BRITISH AND FOREIGN UNITARIAN ASSOCIATION, 37, NORFOLK STREET, STRAND. 1875. A. 101963

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NOTE.

The inhabitants of Birmingham performed a great act of retributive justice to the illustrious memory of Dr. Joseph Priestley, by erecting a marble statue on August 1, 1874, the centenary of his discovery of Oxygen. This Memorial Volume, compiled at the request of the Committee of the British and Foreign Unitarian Association, contains reports of the commemorative meetings at Birmingham, Leeds, Paris, and Northumberland (Pennyslvania); together with Sermons by Messrs. H. W. Crosskey, George Dawson, and John Fretwell; and Contemporary Articles of the Press.

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THE

PRIESTLEY MEMORIAL

AT BIRMINGHAM,

August, 1874.

On Saturday afternoon, August 1, the centenary of the discovery of Oxygen, by Dr. Priestley, was celebrated at Birmingham, and the name and figure of a noted townsman were handed down to posterity. The admirers of Priestley, principally as a scientific discoverer, and in some degree also as a politician and philosopher, some time ago raised a fund which was spent in a beautiful marble statue, and this has been presented by Professor Huxley to the Mayor as representing the town. The sculptor is Mr. Williamson, of London, a pupil of Foley, and the statue built of Sicilian marble, and in execution perfect, representing the character of the great scientific man with wonderful fidelity, is a high work of art, and most creditable to the sculptor. peculiar wig of the period, and every part of the costume faithfully executed in detail, with expression as life-like as is possible in marble, Priestley is shown holding in his hand a burning glass, in the act of discovering oxygen. As Professor Huxley in his address afterwards pointed out, the burning glass is reduced to æsthetic proportions, but the incident chosen by the sculptor

otherwise represents accurately the most noteworthy incident of the scientific career of Priestley.

At one o'clock Professor Huxley, as representing the Memorial Fund, the Mayor of Birmingham, as representing the town, a number of ladies and gentlemen mentioned below, formed a procession from the Town Hall to the statue. There, in the presence of a large and well-behaved crowd, the ceremony of unveiling the statue was gone through with extreme brevity.

After uncovering the statue, Professor Huxley, addressing the Mayor, said: I have been requested by the subscribers to the Priestley Fund to present to you, as the representative of the town of Birmingham, this statue of Joseph Priestley. (Applause.)

The Mayor: I have great pleasure in accepting, on behalf of

The Mayor: I have great pleasure in accepting, on behalf of the Corporation of the town, this worthy memorial of one of her greatest citizens. (Applause.)

The procession then returned to the Town Hall, where a public meeting was held. The Hall was well filled.

Professor Huxley presided, and amongst those present were Aldermen Biggs, Hawkes, Phillips, Manton, and Osborne; Councillors Hinks, Kenrick, Brooke Smith, G. Baker, J. E. Baker, Payton, Rolason, Deykin, Thomason, Pollock, Barrow, Collings, Downing, Lewis, Sarsons, Houlston, and Perkins; the Revs. H. W. Crosskey, G. B. Johnson, B. Wright, and H. E. Dowson; Professor Clifford, Dr. Corfield, Dr. Alfred Hill, Dr. Odling, Dr. Holland, Dr. Craig, Dr. Norris, Dr. Savage, Dr. Langford, Dr. Raper, Messrs. G. Dawson, M.A., Samuel Timmins, George Shaw, S. Thornton, George Gore, C. R. Cope, Ray Lancaster, F.R.S., J. T. Bunce, C. J. Woodward, H. Wiggin, T. N. Brown, W. C. Aitken, J. Moden, J. Hinks, W. R. Hughes, W. S. Till, D. Baker, T. K. Gill, F. Schnadhorst, A. Allbright, A. Peyton, W. Middlemore, J. Stubbin, W. P. Harding, J. B. Gaushy, R. F. Martineau, S. A. Brindley, J. B. Gould, Edwin Smith, W. Bragge, T. Watkin Williams, T. Martineau, M. Macfie, W. Harris, J. S. Manton, G. J. Johnson, C. J. Stevens. C. Osler, S. Whitfield, J. Sale, and J. Green. There were a large number of ladies present, amongst whom were Mrs. Joseph

Chamberlain, Miss Ryland, Mrs. Parkes, and Mrs. Parkes-Belloc.

Mr. S. Timmins read letters of apology for absence from the meeting from Mr. John Bright, M.P., Mr. P. H. Muntz, M.P., the Rev. A. R. Vardy (Head Master of King Edward's Grammar School), Professor Tyndal, Professor Morley, Dr. B. W. Richardson, Mr. G. Dixon, M.P., Sir Bartle Frere, Mr. John Evans, the Recorder of Birmingham, Mr. Kynnersley, Mr. S. Buckley, Mr. Goodrich, Canon Wilkinson, Mr. R. W. Dale, Councillor Gooch, &c. Professor Huxley then delivered the following address.

PROFESSOR HUXLEY'S ADDRESS.

Ir the man to perpetuate whose memory we have this day raised a statue had been asked on what part of his busy life's work he set the highest value, he would have undoubtedly have pointed to his voluminous contributions to theology. In season and out of season, he was the steadfast champion of that hypothesis respecting the Divine nature which is termed Unitarianism by its friends, and Socinianism by its foes. Regardless of odds, he was ready to do battle with all comers in that cause; and if no adversaries entered the lists, he would sally forth to seek them.

To this, his highest ideal of duty, Joseph Priestley sacrificed the vulgar prizes of life, which, assuredly, were within easy reach of a man of his singular energy and varied abilities. For this object he put aside, as of secondary importance, those scientific investigations which he loved so well, and in which he showed himself so competent to enlarge the boundaries of natural knowledge and to win fame. In this cause, he not only cheerfully suffered obloquy from the bigoted and the unthinking, and came within sight of martyrdom; but bore with that which is much harder to be borne than all these, the unfeigned astonishment and hardly disguised contempt of a brilliant society, composed of men whose sympathy and esteem must have been most dear to him, and to

whom it was simply incomprehensible that a philosopher should seriously occupy himself with any form of Christianity.

It appears to me that the man who, setting before himself such an ideal of life, acted up to it consistently, is worthy of the deepest respect, whatever opinion may be entertained as to the real value of the tenets which he so zealously propagated and defended.

But I am sure that I speak not only for myself, but for all this assemblage, when I say that our purpose to-day is to do honour, not to Priestley, the Unitarian divine, but to Priestley, the fearless defender of rational freedom in thought and in action: to Priestley, the philosophic thinker; to that Priestley who held a foremost place among "the swift runners who hand over the lamp of life,"* and transmit from one generation to another the fire kindled, in the childhood of the world, at the Promethean altar of Science.

The main incidents of Priestley's life are so well known that I need dwell upon them at no great length.

Born in 1733, at Fieldhead, near Leeds, and brought up among Calvinists of the straightest orthodoxy, the boy's striking natural ability led to his being devoted to the profession of a minister of religion; and, in 1752, he was sent to the Dissenting Academy at Daventry—an institution which authority left undisturbed, though its existence contravened the law. The teachers under whose instruction and influence the young man came at Daventry, carried out to the letter the injunction to "try all things: hold fast that which is good," and encouraged the discussion of every imaginable proposition with complete freedom, the leading professors taking opposite sides; a discipline which, admirable as it may be from a purely scientific point of view, would seem to be calculated to make acute, rather than sound, divines. Priestley tells us in his "Autobiography," that he generally found himself on the unorthodox side: and as he grew older, and his faculties attained their maturity, this native ten-

^{* &}quot;Quasi cursores, vitaï lampada tradunt." -Luon. "De Rerum Nat.," ii. 78.

dency towards heterodoxy grew with his growth and strengthened with his strength. He passed from Calvinism to Arianism; and finally, in middle life, landed in that very broad form of Unitarianism, by which his craving after a credible and consistent theory of things was satisfied.

On leaving Daventry, Priestley became minister of a congregation, first at Needham Market, and secondly at Nantwich; but whether on account of his heterodox opinions, or of the stuttering which impeded his expression of them in the pulpit, little success attended his efforts in this capacity. In 1761, a career much more suited to his abilities became open to him. He was appointed "tutor in the languages" in the Dissenting Academy at Warrington, in which capacity, besides giving three courses of lectures, he taught Latin, Greek, French, and Italian, and read lectures on the Theory of Language and Universal Grammar, on Oratory, Philosophical Criticism, and the Civil Law. And it is interesting to observe that, as a teacher, he encouraged and cherished in those whom he instructed, the freedom which he had enjoyed, in his own student days, at Daventry. One of his pupils tells us that—

"At the conclusion of his lecture, he always encouraged his students to express their sentiments relative to the subject of it, and to urge any objections to what he had delivered, without reserve. It pleased him when any one commenced such a conversation. In order to excite the freest discussion, he occasionally invited the students to drink tea with him, in order to canvass the subjects of his lectures. I do not recollect that he ever showed the least displeasure at the strongest objections that were made to what he delivered, but I distinctly remember the smile of approbation with which he usually received them: nor did he fail to point out, in a very encouraging manner, the ingenuity or force of any remarks that were made, when they merited these characters. His object, as well as Dr. Aikin's, was to engage the students to examine and decide for themselves, uninfluenced by the sentiments of any other persons." *

It would be difficult to give a better description of a model teacher than that conveyed in these words.

From his earliest days, Priestley had shown a strong bent

^{* &}quot;Life and Correspondence of Dr. Priestley," by J. T. Rutt, vol. i. p. 50.

towards the study of nature; and his brother Timothy tells that the boy put spiders into bottles to see how long they would live in the same air—a curious anticipation of the investigations of his later years. At Nantwich, where he set up a school, Priestley informs us that he bought an air-pump, an electrical machine, and other instruments, in the use of which he instructed his scholars. But he does not seem to have devoted himself seriously to physical science until 1766, when he had the great good fortune to meet Benjamin Franklin, whose friendship he ever afterwards enjoyed. Encouraged by Franklin, he wrote a "History of Electricity," which was published in 1767, and appears to have met with considerable success.

In the same year, Priestley left Warrington to become the minister of a congregation at Leeds; and, here, happening to live next door to a public brewery, as he says:—

"I at first amused myself with making experiments on the fixed air which I found ready made in the process of fermentation. When I removed from that house I was under the necessity of making fixed air for myself; and one experiment leading to another, as I have distinctly and faithfully noted in my various publications on the subject, I by degrees contrived a convenient apparatus for the purpose, but of the cheapest kind.

"When I began these experiments I knew very little of chemistry, and had, in a manner, no idea on the subject, before I attended a course of chemical lectures, delivered in the Academy at Warrington, by Dr. Turner, of Liverpool. But I have often thought that, upon the whole, this circumstance was no disadvantage to me, as, in this situation, I was led to devise an apparatus and processes of my own, adapted to my peculiar views; whereas, if I had been previously accustomed to the usual chemical processes, I should not have so easily thought of any other, and without new modes of operation, I should hardly have discovered anything materially new." *

The first outcome of Pricstley's chemical work, published in 1772, was of a very practical character. He discovered the way of impregnating water with an excess of "fixed air," or carbonic acid, and thereby producing what we now know as "soda water"—a

^{* &}quot;Autobiography," §§ 100, 101.

service to naturally, and still more to artificially, thirsty souls, which those whose parched throats and hot heads are cooled by morning draughts of that beverage, cannot too gratefully acknowledge. In the same year, Priestley communicated the extensive series of observations which his industry and ingenuity had accumulated, in the course of four years, to the Royal Society, under the title of "Observations on Different Kinds of Air"—a memoir which was justly regarded of so much merit and importance, that the Society at once conferred upon the author the highest distinction in their power, by awarding him the Copley Medal.

In 1771, a proposal was made to Priestley to accompany Captain Cook in his second voyage to the South Seas. He accepted it, and his congregation agreed to pay an assistant to supply his place during his absence. But the appointment lay in the hands of the Board of Longitude, of which certain clergymen were members; and whether these worthy ecclesiastics feared that Priestley's presence among the ship's company might expose his Majesty's Sloop Resolution to the fate which aforetime befell a certain ship that went from Joppa to Tarshish; or whether they were alarmed lest a Socinian should undermine that piety which, in the days of Commodore Trunnion, so strikingly characterized sailors, does not appear; but, at any rate, they objected to Priestley "on account of his religious principles," and appointed the two Forsters, whose "religious principles," if they had been known to these well-meaning but not far-sighted persons, would probably have surprised them.

In 1772, another proposal was made to Priestley. Lord Shelburne, desiring a "literary companion," had been brought into communication with Priestley by the good offices of a friend of both, Dr. Price; and offered him the nominal post of librarian, with a good house and appointments, and an annuity in case of the termination of the engagement. Priestley accepted the offer, and remained with Lord Shelburne for seven years, sometimes residing at Calne, sometimes travelling abroad with the Earl.

Why the connection terminated has never been exactly known; but it is certain that Lord Shelburne behaved with the utmost consideration and kindness towards Priestley; that he fulfilled his engagements to the letter; and that, at a later period, he expressed a desire that Priestley should return to his old footing in his house. Probably enough, the politician, aspiring to the highest offices in the state, may have found the position of the protector of a man who was being denounced all over the country as an infidel and an atheist somewhat embarrassing. In fact, a passage in Priestley's "Autobiography" on the occasion of the publication of his "Disquisitions Relating to Matter and Spirit," which took place in 1777, indicates pretty clearly the state of the case:—

"(126.) It being probable that this publication would be unpopular, and might be the means of bringing odium on my patron, several attempts were made by his friends, though none by himself, to dissuade me from persisting in it. But being, as I thought, engaged in the cause of important truth, I proceeded without regard to any consequences, assuring them that this publication should not be injurious to his lordship."

It is not unreasonable to suppose that his lordship, as a keen, practical man of the world, did not derive much satisfaction from this assurance. The "evident marks of dissatisfaction" which Priestley says he first perceived in his patron in 1778, may well have arisen from the peer's not unnatural uneasiness as to what his domesticated, but not tamed, philosopher might write next, and what storm might thereby be brought down on his own head; and it speaks very highly for Lord Shelburne's delicacy that, in the midst of such perplexities, he made not the least attempt to interfere with Priestley's freedom of action. In 1780, however, he intimated to Dr. Price that he should be glad to establish Priestley on his Irish estates: the suggestion was interpreted, as Lord Shelburne probably intended it should be, and Priestley left him, the annuity of £150 a year, which had been promised in view of such a contingency, being punctually paid.

After leaving Calne, Priestley spent some little time in London, and then, having settled in Birmingham at the desire of his brother-in-law, he was soon invited to become the minister of a large congregation. This settlement Priestley considered, at the

time, to be "the happiest event of his life." And well he might think so; for it gave him competence and leisure; placed him within reach of the best makers of apparatus of the day; made him a member of that remarkable "Lunar Society," at whose meetings he could exchange thoughts with such men as Watt, Wedgewood, Darwin, and Boulton; and threw open to him the pleasant house of the Galtons of Barr, where these men, and others of less note, formed a society of exceptional charm and intelligence.*

But these halcyon days were ended by a bitter storm. French Revolution broke out. An electric shock ran through the nations; whatever there was of corrupt and retrograde, and, at the same time, a great deal of what there was of best and noblest, in European society shuddered at the outburst of long pent-up social fires. Men's feelings were excited in a way that we, in this generation, can hardly comprehend. Party wrath and virulence were expressed in a manner unparalleled, and it is to be hoped impossible, in our times; and Priestley and his friends were held up to public scorn, even in Parliament, as fomenters of sedition. "Church-and-King" cry was raised against the Liberal Dissenters; and in Birmingham it was intensified and specially directed towards Priestley by a local controversy, in which he had engaged with his usual vigour. In 1791, the celebration of the second anniversary of the taking of the Bastille by a public dinner, with which Priestley had nothing whatever to do, gave the signal to the loyal and pious mob, who, unchecked, and indeed to some extent

^{*} See "The Life of Mary Anne Schimmelpenninck." Mrs. Schimmelpenninck (née Galton) remembered Priestley very well, and her description of him is worth quotation:—"A man of admirable simplicity, gentleness, and kindness of heart, united with great acuteness of intellect. I can never forget the impression produced on me by the serene expression of his countenance. He, indeed, seemed present with God by recollection, and with man by cheerfulness. I remember that, in the assembly of these distinguished men, amongst whom Mr. Boulton, by his noble manner, his fine countenance (which much resembled that of Louis XIV.), and princely munificence, stood pre-eminently as the great Mecænas; even as a child, I used to feel, when Dr. Priestley entered after him, that the glory of the one was terrestrial, that of the other celestial; and utterly far as I am removed from a belief in the sufficiency of Dr. Priestley's theological creed, I cannot but here record this evidence of the eternal power of any portion of the truth held in its vitality."

encouraged, by those who were responsible for order, had the town at their mercy for three days. The chapels and houses of the leading Dissenters were wrecked, and Priestley and his family had to fly for their lives, leaving library, apparatus, papers, and all their possessions, a prey to the flames.

Priestley never returned to Birmingham. He bore the ontrages and losses inflicted upon him with extreme patience and sweetness,* and hetook himself to London. But even his scientific colleagues gave him a cold shoulder; and though he was elected minister of a congregation at Hackney, he felt his position to be insecure, and finally determined on emigrating to the United States. He landed in America in 1794; lived quietly with his sons at Northumberland, in Pennsylvania, where his postcrity still flourish; and, clear-headed and busy to the last, died on the 6th of February, 1804.

Such were the conditions under which Joseph Priestley did the work which lay before him, and then, as the Norse Sagas say, went out of the story. The work itself was of the most varied kind. No human interest was without its attraction for Priestley, and few men have ever had so many irons in the fire at once; but though he may have burned his fingers a little, very few who have tried that operation have burned their fingers so little. He made admirable discoveries in science; his philosophical treatises are still well worth reading; his political works are full of insight and replete with the spirit of freedom; and while all these sparks flew off from his anvil, the controversial hammer rained a hail of blows on orthodox priest and bishop. While thus engaged, the kindly, cheerful doctor felt no more wrath or uncharitableness towards his opponents than a smith does towards his iron. But if the iron could only speak !-- and the priests and bishops took the point of view of the iron.

No doubt what Priestley's friends repeatedly urged upon him-

^{*} Even Mrs. Priestley, who might be forgiven for regarding the destroyers of her household gods with some asperity, contents herself, in writing to Mrs. Barbauld, with the sarcasm that the Birmingham people "will scarcely find so many respectable characters, a second time, to make a bonfire of."

that he would have escaped the heavier trials of his life and donc more for the advancement of knowledge, if he had confined himself to his scientific pursuits and let his fellow-men go their way—was true. But it seems to have been Priestley's feeling that he was a man and a citizen before he was a philosopher, and that the duties of the two former positions are at least as imperative as those of the latter. Moreover, there are men (and I think Priestley was one of them) to whom the satisfaction of throwing down a triumphant fallacy is as great as that which attends the discovery of a new truth; who feel better satisfied with the government of the world, when they have been helping Providence by knocking an imposture on the head; and who care even more for freedom of thought than for mere advance of knowledge. These men are the Carnots who organize victory for truth, and they are, at least, as important as the generals who visibly fight her battles in the field.

Priestley's reputation as a man of science rests upon his numerous and important contributions to the chemistry of gaseous bodies; and to form a just estimate of the value of his work—of the extent to which it advanced the knowledge of fact and the development of sound theoretical views—we must reflect what chemistry was in the first half of the eighteenth century.

The vast science which now passes under that name had no existence. Air, water, and fire were still counted among the elemental bodies; and though Van Helmont, a century before, had distinguished different kinds of air as gas ventosum and gas sylvestre, and Boyle and Hales had experimentally defined the physical properties of air, and discriminated some of the various kinds of aëriform bodies, no one suspected the existence of the numerous totally distinct gaseous elements which are now known, or dreamed that the air we breathe and the water we drink are compounds of gaseous elements.

But, in 1754, a young Scotch physician, Dr. Black, made the first clearing in this tangled backwood of knowledge. And it gives one a wonderful impression of the juvenility of scientific

chemistry to think that Lord Brougham, whom so many of us recollect, attended Black's lectures when he was a student in Edinburgh. Black's researches gave the world the novel and startling conception of a gas that was a permanently elastic fluid like air, but that differed from common air in being much heavier, very poisonous, and in having the properties of an acid, capable of neutralizing the strongest alkalies; and it took the world some time to become accustomed to the notion.

A dozen years later, one of the most sagacious and accurate investigators who has adorned this, or any other, country, Henry Cavendish, published a memoir in the "Philosophical Transactions," in which he deals not only with the "fixed air" (now called carbonic acid or carbonic anhydride) of Black, but with "inflammable air," or what we now term hydrogen.

By the rigorous application of weight and measure to all his processes, Cavendish implied the belief subsequently formulated hy Lavoisier, that, in chemical processes, matter is neither created nor destroyed, and indicated the path along which all future explorers must travel. Nor did he himself halt until this path led him, in 1784, to the brilliant and fundamental discovery that water is composed of two gases united in fixed and constant proportions.

It is a trying ordeal for any man to be compared with Black and Cavendish, and Priestley cannot be said to stand on their level. Nevertheless, his achievements are not only great in themselves, but truly wonderful, if we consider the disadvantages under which he laboured. Without the careful scientific training of Black, without the leisure and appliances secured by the wealth of Cavendish, he scaled the walls of science as so many Englishmen have done before and since his day; and trusting to mother wit to supply the place of training, and to ingenuity to create apparatus out of washing tubs, he discovered more new gases than all his predecessors put together had done. He laid the foundations of gas analysis; he discovered the complementary actions of animal and vegetable life upon the constituents of the atmosphere; and, finally, he crowned his work, this day one

hundred years ago, by the discovery of that "pure dephlogisticated air" to which the French chemists subsequently gave the name of oxygen. Its importance, as the constituent of the atmosphere which disappears in the processes of respiration and combustion, and is restored by green plants growing in sunshine, was proved somewhat later. For these brilliant discoveries the Royal Society elected Priestley a Fellow and gave him their medal, while the Academies of Paris and St. Petersburg conferred their membership upon him. Edinburgh had made him an honorary doctor of laws at an early period of his career; but, I need hardly add, that a man of Priestley's opinions received no recognition from the universities of his own country.

That Priestley's contributions to the knowledge of chemical fact were of the greatest importance, and that they richly deserve all the praise that has been awarded to them is unquestionable; but it must, at the same time, be admitted that he had no comprehension of the deeper significance of his work; and, so far from contributing anything to the theory of the facts which he discovered. or assisting in their rational explanation, his influence to the end of his life was warmly exerted in favour of error. From first to last he was a stiff adherent of the phlogiston doctrine which was prevalent when his studies commenced; and, by a curious irony of fate, the man who by the discovery of what he called "dephlogisticated air" furnished the essential datum for the true theory of combustion, of respiration, and of the composition of water, to the end of his days fought against the inevitable corollaries from his own labours. His last scientific work, published in 1800, bears the title, "The Doctrine of Phlogiston Established, and that of the Composition of Water Refuted."

When Priestley commenced his studies, the current belief was, that atmospheric air, freed from accidental impurities, is a simple elementary substance, indestructible and unalterable, as water was supposed to be. When a combustible burned, or when an animal breathed in air, it was supposed that a substance, "phlogiston," the matter of heat and light, passed from the burning or breathing body into it, and destroyed its powers of supporting life and com-

bustion. Thus, air contained in a vessel in which a lighted candle had gone out, or a living animal had breathed until it could breathe no longer, was called "phlogisticated." The same result was supposed to be brought about by the addition of what Priestley called "nitrous gas" to common air.

In the course of his researches, Priestley found that the quantity of common air which can thus become "phlogisticated," amounts to about one-fifth the volume of the whole quantity submitted to experiment. Hence it appeared that common air consists, to the extent of four-fifths of its volume, of air which is already "phlogisticated;" while the other fifth is free from phlogiston, or "dephlogisticated." On the other hand, Priestley found that air "phlogisticated" by combustion or respiration could be "dephlogisticated," or have the properties of pure common air restored to it, by the action of green plants in sunshine. The question, therefore, would naturally arise—as common air can be wholly phlogisticated by combustion, and converted into a substance which will no longer support combustion, is it possible to get air that shall be less phlogisticated than common air, and, consequently, support combustion better than common air does?

Now, Priestley says that, in 1774, the possibility of obtaining air less phlogisticated than common air had not occurred to him.* But in pursuing his experiments on the evolution of air from various bodies by means of heat, it happened that, on the 1st of August, 1774, he threw the heat of the sun, by means of a large burning glass which he had recently obtained, upon a substance which was then called mercurius calcinatus per se, and which is commonly known as red precipitate.

"I presently found that, by means of this lens, air was expelled from it very readily. Having got about three or four times as much as the bulk of my materials, I admitted water to it, and found that it was not imbibed by it. But what surprised me more than I can well express, was that a candle burned in this air with a remarkably vigorous flame, very much like that enlarged flame with which a candle burns in nitrous air, exposed to iron or lime of sulphur; but as I had got nothing like this remarkable

^{* &}quot;Experiments and Observations on Different Kinds of Air," vol. ii. p. 31,

appearance from any kind of air besides this particular modification of nitrons air, and I knew no nitrous acid was used in the preparation of mercurius calcinatus, I was utterly at a loss how to account for it.

"In this case also, though I did not give sufficient attention to the circumstance at that time, the flame of the candle, besides being larger, burned with more splendour and heat than in that species of nitrous air; and a piece of red-hot wood sparkled in it, exactly like paper dipped in a solution of nitre, and it consumed very fast—an experiment which I had never thought of trying with nitrous air." *

Priestley obtained the same sort of air from red lead, but, as he says himself, he remained in ignorance of the properties of this new kind of air for seven months, or until March, 1775,† when he found that the new air behaved with "nitrous gas" in the same way as the dephlogisticated part of common air does; but that, instead of being diminished to four-fifths, it almost completely vanished, and, therefore, showed itself to be "between five and six times as good as the best common air I have ever met with." † As this new air thus appeared to be completely free from phlogiston, Priestley called it "dephlogisticated air."

What was the nature of this air? Priestley found that the same kind of air was to be obtained by moistening with the spirit of nitre (which he terms nitrous acid) any kind of earth that is free from phlogiston, and applying heat; and consequently, he says, "There remained no doubt on my mind but that the atmospherical air, or the thing that we breathe, consists of the nitrous acid and earth, with so much phlogiston as is necessary to its elasticity, and likewise so much more as is required to bring it from its state of perfect purity to the mean condition in which we find it." \(\)

Priestley's view, in fact, is that atmospheric air is a kind of saltpetre, in which the potash is replaced by some unknown earth. And in speculating on the manner in which saltpetre is formed, he enunciates the hypothesis, "that nitre is formed by a real decomposition of the air itself, the bases that are presented to it

^{* &}quot;Experiments and Observations on Different Kinds of Air," vol. ii. pp. 34, 35. † Ibid. p. 40.
‡ Ibid. p. 48.
§ Ibid. p. 55.

having, in such circumstances, a nearer affinity with the spirit of nitre than that kind of carth with which it is united in the atmosphere." *

It would have been hard for the most ingenious person to have wandered further from the truth than Priestley does in this hypothesis of his—and though Lavoisier undoubtedly treated Priestley very ill, and pretended to have discovered dephlogisticated air, or oxygen, as he called it, independently, we can almost forgive him when we reflect how different were the ideas which the great French chemist attached to the body which Priestley discovered.

They are like two navigators, of whom the first sees a new country, but takes clouds for mountains and mirage for lowlands; while the second determines its length and breadth, and lays down on a chart its exact place, so that it, thenceforth, serves as a guide to his successors, and becomes a secure outpost whence new explorations may be pushed.

Nevertheless, as Priestley himself somewhere remarks, the first object of physical science is to ascertain facts, and the service which he rendered to chemistry by the definite establishment of a large number of new and fundamentally important facts, is such as to entitle him to a very high place among the fathers of chemical science.

It is difficult to say whether Priestley's philosophical, political, or theological views, were most responsible for the bitter hatred which was borne to him by a large body of his countrymen,+

^{* &#}x27;' Experiments and Observations on Different Kinds of Air,'' p. 60. The italics are Priestley's own.

^{† &}quot;In all the newspapers and most of the periodical publications, I was represented as an unheliever in Revelation, and no better than an atheist."—Autobiography, Hutt., vol. i. p. 124. "On the walls of houses, &c., and especially where I usually went, were to be seen, in large characters, 'Madan for ever; Dama Priestley; no Presenterianism; Dama the Presenterians,' &c., &c.; and, at one time, I was followed by a number of boys, who left their play, repeating what they had seen on the walls and shouting out, 'Dama Priestley; dama him, dama him, for ever, for ever,' &c., &c. This was no doubt a lesson which they had been taught by their parents, and what they, I fear, had learned from their superiors."—'Appeal to the Public on the Subject of the Riots at Birmingham."

and which found its expression in the malignant insinuations in which Burke, to his everlasting shame, indulged in the House of Commons.

Without containing much that will be new to the readers of Hobbes, Spinoza, Collins, Hume, and Hartley, and, indeed, while making no pretensions to originality, Priestley's "Disquisitions Relating to Matter and Spirit," and his "Doctrine of Philosophical Necessity Illustrated," are among the most powerful, clear, and unflinching expositions of materialism and necessarianism which exist in the English language, and are still well worth reading.

Priestley denied the freedom of the will in the sense of its self-determination; he denied the existence of a soul distinct from the hody; and, as a natural consequence, he denied the natural immortality of man.

In relation to these matters English opinion, a century ago, was very much what it is now.

A man may be a necessarian without incurring graver reproach than that implied in being called a gloomy fanatic, necessarianism, though very shocking, having a note of Calvinistic orthodoxy; but, if a man is a materialist, or, if good authorities say he is and must be so, in spite of his assertion to the contrary; or, if he acknowledge himself unable to see good reasons for believing in the natural immortality of man, respectable folks look upon him as an unsafe neighbour of a cash-box, as an actual or potential sensualist, the more virtuous in outward seeming, the more certainly loaded with secret "grave personal sins."

Nevertheless, it is as certain as anything can be, that Joseph Priestley was no gloomy fanatic, but as cheerful and kindly a soul as ever breathed, the idol of children; a man who was hated only by those who did not know him, and who charmed away the bitterest prejudices in personal intercourse; a man who never lost a friend, and the best testimony to whose worth is the generous and tender warmth with which his many friends vied with one another in rendering him substantial help, in all the crises of his career.

The unspotted purity of Priestley's life, the strictness of his performance of every duty, his transparent sincerity, the unostentatious and deep-seated piety which breathes through all his correspondence, are in themselves a sufficient refutation of the hypothesis, invented by bigots to cover uncharitableness, that such opinions as his must arise from moral defects. And his statue will do as good service as the brazen image that was set upon a pole before the Israelites, if those who have been bitten by the fiery serpents of sectarian hatred, which still haunt this wilderness of a world, are made whole by looking upon the image of a heretic, who was yet a saint.

Though Priestley did not believe in the natural immortality of man, he held with an almost naive realism that man would be raised from the dead by a direct exertion of the power of God, and thenceforward be immortal. And it may be as well for those who may be shocked by this doctrine to know, that views, suostantially identical with Priestley's, have been advocated, since his time, by two prelates of the Anglican Church: by Dr. Whately, Archbishop of Dublin, in his well-known "Essays;"* and by Dr. Courtenay, Bishop of Kingston in Jamaica, the first edition of whose remarkable book "On the Future States," dedicated to Archbishop Whately, was published in 1843, and the second in 1857. According to Bishop Courtenay,

"The death of the body will cause a cessation of all the activity of the mind by way of natural consequence; to continue for ever UNLESS the Creator should interfere."

And again :-

"The natural end of human existence is the 'first death,' the dreamless slumber of the grave, wherein man lies spell-bound, soul and body, under the dominion of sin and death—that whatever modes of conscious existence, whatever future states of 'life,' or of 'torment' beyond Hades, are reserved for man, are results of our blessed Lord's victory over sin and death; that the resurrection of the dead must be preliminary to their

^{*} First Series. "On Some of the Peculiarities of the Christian Religion." Essay I. Revelation of a Future State.

entrance into either of the future states, and that the nature and even existence of these states, and even the mere fact that there is a futurity of consciousness, can be known *only* through God's revelation of Himself in the Person and the Gospel of His Son," p. 389.

And now hear Priestley:--

"Man, according to this system [of materialism], is no more than we now see of him. His being commences at the time of his conception, or perhaps at an earlier period. The corporeal and mental faculties, in being in the same substance, grow, ripen, and decay together; and whenever 'the system is dissolved it continues in a state of dissolution till it shall please that Almighty Being, who called it into existence, to restore it to life again."—" Matter and Spirit," p. 49.

And again :-

"The doctrine of the Scripture is, that God made man of the dust of the ground, and by simply animating this organized matter, made man that living percipient and intelligent being that he is. According to Revelation, death is a state of rest and insensibility, and our only though sure hope of a future life is founded on the doctrine of the resurrection of the whole man at some distant period; this assurance being sufficiently confirmed to us both by the evident tokens of a Divine commission attending the persons who delivered the doctrine, and especially by the actual resurrection of Jesus Christ, which is more authentically attested than any other fact in history."—Ibid, p. 247.

We all know that "a saint in crape is twice a saint in lawn;" but it is not yet admitted that the views which are consistent with such saintliness in lawn become diabolical when held by a mere Dissenter.*

* Not only is Priestley at one with Bishop Courtenay in this matter, but with Hartley and Boonet, both of them stout champions of Christianity. Moreover, Archbishop Whately's essay is little better than an expansion of the first paragraph of Hume's famous essay on the Immortality of the Soul:—"By the mere light of reason it seems difficult to prove the immortality of the soul; the arguments for it are commonly derived either from metaphysical topics, or moral or physical. But it is in reality the Gospel, and the Gospel alone, that has brought life and immortality to light." It is impossible to imagine that a man of Whately's tastes and acquirements had not read Hume or Hartley, though he refers to neither.

I am not here either to defend, or to attack Priestley's philosophical views, and I cannot say that I am personally disposed to attach much value to episcopal authority in philosophical questions; but it seems right to call attention to the fact, that those of Priestley's opinions which have brought most odium upon him, have been openly promulgated, without challenge, by persons occupying the highest positions in the State Church.

I must confess that what interests me most about Priestley's materialism, is the evidence that he saw dimly the seed of destruction which such materialism carries within its own bosom. In the course of his reading for his "History of Discoveries Relating to Vision, Light, and Colours," he had come upon the speculations of Boscovich and Michell, and had been led to admit the sufficiently obvious truth that our knowledge of matter is a knowledge of its properties; and that of its substance—if it have a substance—we know nothing. And this led to the further admission that, so far as we can know, there may be no difference between the substance of matter and the substance of spirit ("Disquisitions," p. 16). A step further would have shown Pricstley that his materialism was, in substance, very little different from the Idealism of his contemporary, the Bishop of Cloyne.

As Priestley's philosophy is mainly a clear statement of the views of the deeper thinkers of his day, so are his political conceptions based upon those of Locke. Locke's aphorism that "the end of government is the good of mankind," is thus expanded by Priestley:—

"It must necessarily be understood, therefore, whether it be expressed or not, that all people live in society for their mutual advantage; so that the good and happiness of the members, that is, of the majority of the members, of any state, is the great standard by which everything relating to that state must finally be determined." *

The little sentence here interpolated, "that is, of the majority of the members of any state," appears to be that passage which

^{* &}quot;Essay on the First Principles of Government." Second edition, p. 13. 1771.

suggested to Bentham, according to his own acknowledgment, the famous "greatest happiness" formula, which by substituting "happiness" for "good," has converted a noble into an ignoble principle. But I do not call to mind that there is any utterance in Locke quite so outspoken as the following passage in the "Essay on the First Principles of Government." After laying down as "a fundamental maxim in all governments," the proposition that "kings, senators, and nobles" are "the servants of the public," Priestley goes on to say:—

"But in the largest states, if the abuses of the government should at any time he great and manifest; if the servants of the people, forgetting their masters and their masters' interest, should pursue a separate one of their own; if, instead of considering that they are made for the people. they should consider the people as made for them; if the oppressions and violation of right should be great, flagrant, and universally resented; if the tyrannical governors should have no friends but a few sycophants. who had long preyed upon the vitals of their fellow-citizens, and who might be expected to desert a government whenever their interests should be detached from it; if, in consequence of these circumstances, it should become manifest that the risk which would be run in attempting a revolution would be triffing, and the evils which might be apprehended from it were far less than those which were actually suffered and which were daily increasing; in the name of God, I ask, what principles are those which ought to restrain an injured and insulted people from asserting their natural rights, and from changing or even punishing their governors—that is, their servants—who had abused their trust, or from altering the whole form of their government, if it appeared to be of a structure so liable to abuse?"

As a Dissenter, subject to the operation of the Corporation and Test Acts, and as a Unitarian, excluded from the benefit of the Toleration Act, it is not surprising to find that Priestley had very definite opinions about Ecclesiastical Establishments; the only wonder is that these opinions were so moderate as the following passages show them to have been:—

"Ecclesiastical authority may have been necessary in the infant state of society, and, for the same reason, it may perhaps continue to be, in some degree, necessary as long as society is imperfect; and therefore may not be entirely abolished till civil governments have arrived at a much greater degree of perfection. If, therefore, I were asked whether I should approve of the immediate dissolution of all the ecclesiastical establishments in Europe, I should answer, No. . . . Let experiment be first made of alterations, or, which is the same thing, of better establishments than the present. Let them be reformed in many essential articles, and then not thrown aside entirely till it be found by experience that no good can be made of them."

Priestley goes on to suggest four such reforms of a capital nature:—

"1. Let the Articles of Faith to be subscribed by candidates for the ministry be greatly reduced. In the formulary of the Church of England, might not thirty-eight out of the thirty-nine be very well spared? It is a reproach to any Christian establishment if every man cannot claim the benefit of it who can say that he believes in the religion of Jesus Christ as it is set forth in the New Testament. You say the terms are so general that even Deists would quibble and insinuate themselves. I answer, that all the articles which are subscribed at present, by no means exclude Deists who will prevaricate; and upon this scheme you would at least exclude fewer honest men."*

The second reform suggested is the equalization, in proportion to work done, of the stipends of the clergy; the third, the exclusion of the bishops from Parliament; and the fourth, complete toleration, so that every man may enjoy the rights of a citizen, and be qualified to serve his country, whether he belong to the Established Church or not.

Opinions such as those I have quoted, respecting the duties and the responsibilities of governors, are the common-places of modern Liberalism; and Priestley's views on Ecclesiastical Establishments would, I fear, meet with but a cool reception, as altogether too conservative, from a large proportion of the lineal descendants of the people who taught their children to cry "Damn Priestley;" and, with that love for the practical application of science which is the source of the greatness of Birmingham, tried to set fire to

[&]quot;"Utility of Establishments," in "Essay on First Principles of Government," p. 198. 1771.

the doctor's house with sparka from his own electrical machine; thereby giving the man they called an incendiary and raiser of sedition against Church and King, an appropriately experimental illustration of the nature of arson and riot.

If I have succeeded in putting before you the main features of Priestley's work, its value will become apparent, when we compare the condition of the English nation, as he knew it, with its present state.

The fact that France has been for eighty-five years trying, without much success, to right herself after the great storm of the Revolution, is not unfrequently cited among us, as an indication of some inherent incapacity for self-government among the French people. I think, however, that Englishmen who argue thus, forget that, from the meeting of the Long Parliament in 1640, to the last Stuart rebellion, in 1745, is a hundred and five years, and that, in the middle of the last century, we had but just safely freed ourselves from our Bourbons and all that they represented. The corruption of our state was as bad as that of the Second Empire. Bribery was the instrument of government, and peculation its reward. Four-fifths of the seats in the House of Commons were more or less openly dealt with as property. A minister had to consider the state of the vote market, and the sovereign secured a sufficiency of "king's friends" by payments allotted with retail, rather than royal, sagacity.

Barefaced and brutal immorality and intemperance pervaded the land, from the highest to the lowest classes of society. The Established Church was torpid, so far as it was not a scandal; but those who dissented from it came within the meshes of the Act of Uniformity, the Test Act, and the Corporation Act. By law, such a man as Priestley, being a Unitarian, could neither teach nor preach, and was liable to ruinous fines and long imprisonment.* In those days, the guns that were pointed by the Church against the Dissenters were shotted. The law was a

^{*} In 1732 Doddridge was cited for teaching without the Bishop's leave, at North-ampton.

cesspool of iniquity and cruelty. Adam Smith was a new prophet whom few regarded, and commerce was hampered by idiotic impediments, and ruined by still more absurd help, on the part of government.

Birmingham, though already the centre of a considerable industry, was a mere village as compared with its present extent. People who travelled went about armed, by reason of the abundance of highwaymen and the paucity and inefficiency of the police. Stage coaches had not reached Birmingham, and it took three days to get to London. Even canals were a recent and muchopposed invention.

Newton had laid the foundation of a mechanical conception of the physical universe: Hartley, putting a modern face upon ancient materialism, had extended that mechanical conception to psychology; Linnæus and Haller were beginning to introduce method and order into the chaotic accumulation of biological facts. But those parts of physical science which deal with heat, electricity, and magnetism, and above all, chemistry, in the modern sense, can hardly be said to have had an existence. No one knew that two of the old elemental bodies, air and water, are compounds, and that a third, fire, is not a substance but a motion. The great industries that have grown out of the applications of modern scientific discoveries had no existence, and the man who should have foretold their coming into being in the days of his son, would have been regarded as a mad enthusiast.

In common with many other excellent persons, Priestley believed that man is capable of reaching, and will eventually attain, perfection. If the temperature of space presented no obstacle, I should be glad to entertain the same idea; but judging from the past progress of our species, I am afraid that the globe will have cooled down so far, before the advent of this natural millennium, that we shall be, at best, perfected Esquimaux. For all practical purposes, however, it is enough that man may visibly improve his condition in the course of a century or so. And if the picture of the state of things in Priestley's time, which I have just drawn, have any pretence to accuracy, I think it must be

admitted that there has been a considerable change for the better.

I need not advert to the well-worn topic of material advancement, in a place in which the very stones testify to that progress—in the town of Watt and of Boulton. I will only remark, in passing, that material advancement has its share in moral and intellectual progress. Becky Sharp's acute remark that it is not difficult to be virtuous on ten thousand a year, has its application to nations; and it is futile to expect a hungry and squalid population to be anything but violent and gross. But as regards other than material welfare, although perfection is not yet in sight—even from the mast-head—it is surely true that things are much better than they were.

Take the upper and middle classes as a whole, and it may be said that open immorality and gross intemperance have vanished. Four and six-bottle men are as extinct as the dodo. Women do not gamble, and talk modelled upon Dean Swift's "Art of Polite Conversation," would be tolerated in no decent kitchen.

Members of the legislature are not to be bought; and constituents are awakening to the fact that votes must not be sold—even for such trifles as rabbits and tea and cake. Political power has passed into the hands of the masses of the people. Those whom Priestley calls their servants have recognized their position, and have requested the master to be so good as to go to school and fit himself for the administration of his property. No civil disability attaches to any one on theological grounds, and the highest offices of the state are open to Papist, Jew, or Secularist.

Whatever men's opinions as to the policy of Establishment, no one can hesitate to admit that the clergy of the Church are men of pure life and conversation, zealous in the discharge of their duties, and, at present, apparently, more bent on prosecuting one another than on meddling with Dissenters. Theology itself has broadened so much that Anglican divines put forward doctrines more liberal than those of Priestley; and, in our state-supported churches, one listener may hear a sermon to which Bossuet might

have given his approbation, while another may hear a discourse in which Socrates would find nothing new.

But great as these changes may be, they sink into insignificance beside the progress of physical science, whether we consider the improvement of methods of investigation, or the increase in bulk of solid knowledge. Consider that the labours of Laplace, of Young, of Davy, and of Faraday; of Cuvier, of Lamarck, and of Robert Brown; of Von Baer, and of Schwann; of Smith and of Hutton, have all been carried on since Priestley discovered oxygen; and consider that they are now things of the past, concealed by the industry of those who have built upon them, as the first founders of a coral reef are hidden beneath the life's work of their successors; consider that the methods of physical science are slowly spreading into all investigations, and that proofs as valid as those required by her canons of investigation, are being demanded of all doctrines which ask for men's assent; and you will have a faint image of the astounding difference in this respect between the nineteenth century and the eighteenth.

If we ask what is the deeper meaning of all these vast changes, I think there can be but one reply. They mean that reason has asserted and exercised her primacy over all provinces of human activity: that ecclesiastical authority has been relegated to its proper place; that the good of the governed has been finally recognized as the end of government, and the complete responsibility of governors to the people as its means; and that the dependence of natural phenomena in general, on the laws of action of what we call matter, has become an axiom.

But it was to bring these things about, and to enforce the recognition of these truths, that Joseph Priestley laboured. If the nineteenth century is other and better than the eighteenth, it is to him and to such men as he, that we owe the change. If the twentieth century is to be better than the nineteenth, it will be because there are among us men who walk in Priestley's footsteps.

Such men are not those whom their own generation delights to honour; such men, in fact, rarely trouble themselves about honour, but ask, in another spirit than Falstaff's, "What is honour? Who hath it? He that died o' Wednesday." But whether Priestley's lot be theirs, and a future generation, in justice and in gratitude, set up their statues; or whether their names and fame are blotted out from remembrance, their work will live as long as time endures. To all eternity, the sum of truth and right will have been increased by their means; to all eternity, falsehood and injustice will be the weaker because they have lived.

Mr. Samuel Timmins then said he had permission to read the following telegrams, which had passed between the Birmingham Committee and the Committee in America, with reference to this anniversary:—

"July 31.—The Priestley Memorial Committee of Birmingham to the American chemists assembled at Northumberland, Pennsylvania. Our marble statue representing Priestley discovering oxygen will be unveiled to-morrow, presented by the subscribers through Professor Huxley to the town, and accepted by the Mayor. We greet you as colleagues engaged in honouring the memory of a great and good man."

"7.48 P.M.—Atlantic Cable.—From Tel. Com. Centenary Celebration to Meeting of Chemists, Birmingham, England. The brother chemists at the grave to their brothers at the home of Priestley send greeting on this centennial anniversary of the birth of chemistry."

"10.35 P.M.—Atlantic Cable Telegraph Company, Northumberland, Pennsylvania.—To Chemical Birmingham, England.—

Welcome despatch received. Professors J. Lawrence, Smith, Youngmans, and Joy appointed committee to represent us in spirit at unveiling of Priestlev's statue."

The Mayor, who was heartily cheered, said:—I have great pleasure, Sir, in completing my formal acceptance, on behalf of the town, of the statue which you have just unveiled, and I say that I esteem it a singular privilege to receive at your hands this monument of a great and worthy man. I am glad to believe that the sculptor on this occasion has been singularly successful, and that he has added a noble work of art to the treasures of a town too little graced hitherto in similar respects. We have done something in our day and generation to commemorate the distinguished men who have preceded us. We have memorials of Watt and Priestley as representatives of men of science in Birmingham, of Attwood as one of our great political leaders—(cheers)—and of Sturge as one of our most noble-minded and active fellow-citizens; and I hope before long we may complete the list, or, at all events, we may add to the roll the names of Baskerville and Matthew Boulton as representatives of the highest spirit of commercial enterprise—(cheers). I confess I esteem myself fortunate and the committee of subscribers happy in that they have selected you, Sir, as their representative on this occasion, because, although you have told us that you are not a chemist, your reputation assures us that you have peculiar qualifications for estimating the merits and labours of a man of science, and, I think, the choice has been fortunate also in this respect, that you are everywhere known for having, like Priestley, the courage of your convictions—(cheers)—and for having on all occasions worthily maintained the dignity of free thought, and the right of free discussion. Now, Sir, while you are referring to the scientific work and attainments of Priestley, I was struck again, as I have been before, with the small assistance which he derived from external sources, at all events with the simplicity of his means and apparatus. time I believe he was indebted for his ability to continue his researches to a small grant of £40 per annum, made to him by some generous and attached friends, and at no time did he receive State aid, or owe anything to public assistance. The only opportunities he enjoyed were such as he obtained from consulting a subscription library, of which he was one of the most active founders, and I cannot but contrast the changed circumstances of the town and the greater opportunities we enjoy. Now all our citizens, be they rich or poor, have access to free libraries and reference libraries, which far surpass anything open in the days of Priestley, which are the pride and glory of our corporation, and which, with the assent and concurrence of all our citizens, we endeavour to make complete representatives of every branch of literature. We have over the way a great institution, of which you, Sir, have been one of the honoured presidents, which provides at a moderate charge for all students opportunities for instruction and improvement. We have the Queen's College just entering, I hope, on an extended sphere of usefulness, and we anticipate having in a short time the inestimable advantages of Mason's Scientific Colleges, which we owe to the liberality and munificence of Sir Josiah Mason. (Cheers.) Still, in cataloguing this list of our advantages, I admit that it is yet incomplete. I regret that there is not now any more than in Priestley's time any adequate or proper opportunity for the prosecution of Priestley's peculiar work—original research. I regret that those who devote themselves to the acquisition of purely scientific knowledge have no stimulus or encouragement by the State. (Hear.) In this respect we fall hehind Continental nations, and I hope this omission will, before long, be repaired, and we may find the State awakening to a proper sense of its responsibilities, and providing encouragement to such seekers after truth, to such men as will add to our stores of acquired knowledge, leaving it to the commercial enterprise of our town and country to make of this knowledge a practical and useful application. (Hear.) But I am very glad that while you, Sir. dwelt on Priestley's services to science, you did not forget the service he also rendered as a philosopher and a politician. I do not regard the act of to-day as only or mainly the homage due to a man of science and genius; I look upon it as a tardy and too long deferred reparation to the memory of an outspoken.

courageous, and brave thinker and worker. (Cheers). For I cannot forget that it was of this man that Coleridge wrote:—

"Him from his native land,
Statesmen blood-stained and priests idolatrous,
By dark lies maddening the blind multitude,
Drove with vain hate; calm, pitying, he retired,
And mused expectant on these promised years."

You have said, Sir, and said truly, that this is no demonstration in favour of the doctrines of Unitarianism which Priestley professed; neither is it, as has been charitably suggested, I am informed, by a local journalist, who, I regret to learn, has brought discredit upon his colleagues, a demonstration in favour of Republicanism. Priestley's political and religious views are not in question at this moment, and the issue upon which we ask your verdict, and the verdict of the town, is the right of free discussion for which Priestley so strenuously contended, and for the maintenance of which he was so shamefully persecuted. I think it was in his address to his fellow-townspeople, after the riots, that he declared that he had never consciously injured any human being, that he entertained no injurious thought or sentiment concerning any of his fellow-countrymen, and that he hoped and believed that the time would shortly come when his countrymen would do him justice, and would admit that he had some slight claim on their gratitude and esteem. I rejoice that it falls to my lot, as chief magistrate of this, the town in which he lived, to witness this expiation in some measure of the persecution which he suffered, and I rejoice, Sir, at receiving from your hands this memorial of a good man, whose undoubted services were hidden for a time by the mists of party passion and sectarian bigotry. (Cheers.)

Mr. George Dawson was enthusiastically received. He said:—I am a little perplexed, because I was led to believe we were to keep clear to-day of politics and theology, and that the discovery of oxygen was to be the chief subject before us. But when I look round upon this platform and room I think it must be a mistake, for there was a class of which I had hoped to see some representa-

tives here—the clergy of the Church of England. But I do not see one present, and at any rate the leaders are absent; therefore I count it that to them the discovery of oxygen is not important enough to bring them together. I regret that it should be so, and, perhaps, I may be able to apologize for them on the ground that they are engaged in making oxygen enough to put into their sermons. (Laughter.) I say I regret they are not here, for it is a poor line to write in the history of the Church of England that one hundred years after the discovery of oxygen they have not found out sufficient of its importance to do honour to the man who made the discovery. But with many of them, "as it was in the beginning, so it is now, and so it ever shall be." (Laughter.) I have no intention to enter into a disquisition on the theology of Priestley, nor to say very much about his politics; what I have intended to do, and what, resisting all temptations, I will still do, is to point out some of the sweet humanities of the man, lest any of you should think, he being a Unitarian minister, that he was cold, or stiff, or not given to humour, or not playful, or not passionate; or seeing his face so very white in the statue, you might think he was one of those pure people it were impossible to love but easy to respect and admire. You have heard enough to-day about his greater claims, and now come to the little traits in his character. First, to do justice to one of the greatest, he felt himself bound to search for truth and to keep in that road wherever it might/lead and whoever deserted or praised him. He looked upon writings as so much phenomena to be examined by his reason, that the logic of St. Peter, as well as the peculiar preparations of Mercury, were alike to be exposed to the operations of his burning-glass, and he had to wait for the results. A more simple-souled student of the truth in all things than Joseph Priestley the world never knew; it was for him to search, and for God to send. The consequences belonged not to him; you never found, once in his life, any deviation from that; he believed in constant search and in constant proclamation of truth. There was a "sweet reasonableness" about him; he always kept himself quiet and calm. I do not profess that he had any very passionate emotions. He thought he would try various things

because there were things to be tried. He tried poetry, but he said himself, "I am not a poet, though I have versified a good deal." He went so far as to say that Mrs. Barbauld was one of the greatest of England's poets, thus showing that he was neither a poet nor a critic of poetry, for England has long since ceased to think much of Mrs. Barbauld; she is put away on the back shelves, sometimes brought out to be dusted, and that is all. Joseph Priestley found something called music about, so he must needs meddle a bit with that. His instrument was the flute, but he discovered he had no ear and no taste, and with a "sweet reasonableness" he found that it was better perhaps, so if he heard bad music he would not suffer so much. (Laughter.) It was said, and said justly, that children loved him, and whatever a man's looks may be, if children love him there is beneath the appearance something deep, true, and genuine. Though the shadows of death were falling, and the chill dews coming upon the brow, the little grandchild got the "fi'penny bit" for which she had come. Nor forget his death-bed. He had no spasms of penitence; he needed none. He had no doubts about his God, for he had never doubted his goodness. From the day that he parted with that precious privilege, which it makes men so handy to take away, to the end of his life, in the goodness of God he never lost faith for one moment. He had no need for spasmodic repentance, no doubts about God or the future; he needed no clergyman, for he had nothing to confess; he had two pamphlets to finish, and whatever they were they were his last work. He dictated the end of these unfinished works to a friend, who put it into his own words. But this would not do. Joseph Priestley is not going to speak on his dying bed, through other lips he dictated what he wanted. It was his last act. Soon after this just, pure, brave, gentle, quiet man, went away; a workman worthy of his hire, faithful to the last, who worked to the twelfth hour, and then laid down his tools, always bravely used, and, I say, went his way to God. But, turning from this, there is one thing no one has noticed, and which seldom is noticed, in connection with Priestley. He nearly went with Cook, but the ecclesiastical mem-

bers of the Board of Longitude-I wish ecclesiastical members were on a Board of Latitude (laughter)—they objected to him. But you remember that he knew a Franklin and a Price and a Dr. Darwin, in fact, almost all the men whose heads were bigger and whose brains were larger than the dull pedants and gloomy bigots that persecuted him. And out of all the men out of whom unwittingly Priestley struck fire was that strange, strong, vulgar, violent, brave, true-hearted prose poet of England, William Cobbett. When he landed in America he made a speech not altogether complimentary to England; for, like a bee, his hive had been plundered, his honey had been taken away, and he had been smoked out. Therefore it was not likely that he should speak altogether sweetly of the land he had left. Amongst his auditors stood that brave ex-common soldier, at that time a vulgar, violent, virulent, vehement, and vindictive old Tory (laughter), who thought the British constitution was like the solar system, innocent of error, and incapable of improvement. (Laughter.) When, therefore, he heard what he did, his blood was fired, his pen was pointed, his ink was made bitter, and he wrote one of his first pamphlets, and that pamphlet, followed by others, determined the career of William Cobbett, for he became, with the exception of Daniel Defoe, the greatest pamphleteer of England. Perhaps his violent abuse of Priestley made him first to know the strong stuff in him. He got nearer to Priestley afterwards, and he would not have been so violent if Priestley had lived much longer. That passage in the history of the two men is worth noticing. I trust soon to have the privilege of seeing the place where Priestley died, and I shall not attempt to do as Cobbett did with the bones of Tom Paine, take them up and bring them home to this country. (Laughter.) I have but one thing to say in connection with the meeting. I thought at first it must be a meeting of Nonconformists for the purpose of wondering at the inscrutable dispensations of Almighty Providence in having seen fit to bestow genius, learning, and the power of discovery upon the men of the meeting-house. It seems to be inscrutable what Providence can have been about to let such people as Priestley be great, or what the authorities above

could be thinking of when they suffered man's noblest lay to be sung by Milton, and the lowliest, loveliest romance, the sweetest guide of life-the Pilgrim's Progress-to be written by a sectarian, and when they allowed a Leicester hosier to be the author of that charming book which the boys of all nations have loved with a passion. (Laughter.) What they could have been thinking of I cannot understand; when the ways of God are past finding out they are the subjects for prayer and adoration. And I thought, perhaps, this meeting was called in grateful acknowledgment that in his inscrutable, mysterious wisdom He had thought fit to allow a poor Unitarian parson to make one of the greatest discoveries which science owns, and by which mankind has been blessed. (Cheers.) All I can humbly pray is that Providence will be pleased to contrive such manifestations, and to teach all men who are wise that its spirit will blow where it listeth, and that whatsoever clerical anthorities may think. Providence knows where to find its men, and is no more ashamed in these days to fetch them from the humble meeting-house, or from the lowly Radicals, than it was in days of old to fetch the herdsman's son and the humble fisherman, Peter, now to wail over the sins of a nation, and now to preach a regenerated Gospel to the world. (Cheers.) Not having intended to deviate from the humanities of Priestley, it is the absence of certain people that has stirred this burst of gratitude, and I cannot but think of the man who, with the best intentions, wishing some one to say grace, looked round the table, and said in one breath, "No clergyman present, thank God!" (Cheers and laughter.) If I seem to have travelled out of the record, let this be my excuse: I meant to behave well, but I have been tempted, I fear, to my fall. (Cheers.)

On the proposition of Mr. S. Timmins, seconded by the Mayor, a cordial vote of thanks was passed to Professor Huxley.

This terminated the proceedings.

THE LUNCHEON.

After leaving the Town Hall the guests repaired to the Great Western Hotel, where a sumptuous luncheon was awaiting them. The Mayor presided, and the vice-chairs were occupied by Messrs. George Dawson and S. Timmins. The party included the gentlemen whose names appear above, and a large number of ladies.

The Mayor, in proposing the toast of "The Queen," said he believed the great majority of the English people were distinctively loyal. He remembered reading of some unfortunate gentlemen, who met at dinner, proposing the "King and Constitution" as the first toast, when they were afterwards to go home and find one of their houses on fire. He remembered that Dr. Priestley, in his writings, repudiated Republican opinions. He seemed to have. as any one might expeet from a man of his character, an instinctive sympathy with the principles of representative government; but at the same time he seemed to have remembered that in a country like this, where loyalty has been for a long time established, and the habits and traditions of the people must be consulted, the establishment of Republican institutions under such circumstances would be doubtful; but even those specific moderate sentiments did not save Dr. Priestley from the personal dislike and bigotry of George III., who expressed his pleasure that the doctor should suffer from the bigotry which he (the King) had instilled into the minds of the people. It was a matter of satisfaction to know that the present reign had not been disgraced by such personal feelings of prejudice and bigotry. Men of every shade of politics were enabled to pay their tribute to the spirit of liberty pervading the public utterances and works of her Majesty the Queen, and he was bound to say that he believed the respect which, during the present reign, had been paid to the Sovereign had been equalled by the respect which the Sovereign had shown to the true spirit of the English constitution. (Applause.)

The Mayor said he had then to ask them to drink to the memory of Dr. Priestley. He thought that the time had now

come when possibly they might fairly hope, without prejudice and without partiality, to estimate the merits and character of the man whom they had attempted that day to honour. He was not going, for reasons which he had already given, to dwell at length upon his scientific services, on which they had listened to so able and eloquent a tribute that day from Professor Huxley; but he might say he felt that, during his own time, and also at the present day, those services were acknowledged. Even at the time of the riots Dr. Priestley was admitted to be the founder of modern chemistry; he was recognized by men of science throughout the world as eminently worthy of their esteem and admiration. But it appeared to him that we only paid half our debts. They had that evening something to say to justify the course they had taken, which was one so much opposed to the feeling of Priestley's day. They had to refute the calumnies of which that man was the subject during his life—because they must remember that that eminent scientific personage to whom they had erected a statue was in his own day reviled as the worst of malefactors and felons. He could call to mind many instances of the treatment to which he was subjected; but he need only remind them, to show the feeling towards him in his day, that by the Rector of Stourbridge he was compared with the devil himself (laughter), and that at a meeting of dignitaries of the Church one amiable enthusiast said that if he could see Dr. Priestley seated on a pile of his own publications he would set fire to the lot, and burn him and them together. sentiment, in his time, was loudly vaunted by those Christian teachers; but we of the present day had to show that these men misjudged the character and the life and works of Dr. Priestley, or else we had no justification for the honour which we had paid to his memory. He hoped he was as little likely as any one to underestimate the value and power of men of science; but in Professor Huxley's presence he said that even science itself could not cover the multitude of sins of which Dr. Priestley in his life-time was accounted guilty. He believed that Mr. Eugene Aram was a man of considerable literary acquirements, but he never heard it was proposed to overlook the offence of which he was found guilty on

account of those literary attainments. It seemed to him that it would be disloyal to the memory of the man we sought to honour if we did not show that these calumnies were without foundation; if on the present occasion we were to unite in tuning our harps to the praise of the glories of Dr. Priestley without knowing who and what manner of man Dr. Priestley was. We found that his ability as a man of science, at all events, was admitted on all hands to be unquestionable. We found that he possessed in a remarkable degree those virtues of order, of perseverance, and of industry without which no man of science had ever attained great eminence. We found he was a man simple in his tastes, frugal in his habits, when such frugality was less known than at the present time; that he was amiable and affectionate in private life. As they had been told that morning, he secured the warm attachment of the whole of the friends whose acquaintance he enjoyed, and he was a man who was devoted to, and reverenced by, his own family. What would surprise some persons more than this, he was an eminently religious man, and having been all his life an earnest inquirer after truth, he clung to what he believed he had discovered to be the truth, and endeavoured, to the best of his ability, to propagate the faith which was in him. When his friend observed that he thought he gave too much time to proselytizing, he (Dr. Priestley) reminded him that it was only natural that one who felt the truth so strongly should endeavour to enlist others to embrace what he believed to be the truth. Such a spirit as this in a time when discussion was scarcely as free as it had ever been since might have been called an ardent controversialist. He spoke in the plainest and directest possible terms; but, as far as he (the Mayor) knew Dr. Priestley never forgot that he was a scholar and a gentleman, and he never degraded the cause he had undertaken. Now, after all these characteristics, it did not seem easy to discover the reason of the hate in which Dr. Priestley was held. He was totally unaware of the passions which he himself had excited. Writing in his memoirs, very shortly after the outbreak of the riots, he expressed the love he had for Birmingham, the happiness he had experienced

during his sojourn here, his hopes that they would lay his bones among his fellow-townsmen, and the confidence he had that he was regarded by his honourable opponents with esteem and con-Failing to find any reason for the extraordinary persecution to which he was subjected in the man himself, he (the Mayor) had to seek it in the circumstances of the unhappy times upon which he fell. Professor Huxley had brought before them that morning the condition of this country during the French Revolution, and it was a curious but admitted fact that the various convulsions which from time to time had distracted that country had unfortunately created a panic in England, produced a revolution of political opinion which, he thought, we had got to regard with sufficient equanimity, and which we now called Conservative reaction. (Laughter.) Fortunately, the result of the recent recurrence of that revolution had been very much less virulent than it was at its first outbreak. At the time of King George III. the owners of property, and the defenders of vested rights and unquestionable privileges, and everybody else, brought themselves into a state of alarm and terror. most ordinary and necessary reforms were regarded as certain preludes to a reign of terror, and the man whom we should now be inclined to regard as a moderate and half-hearted Liberal was declaimed against in those days as an apostle of sedition and revolution of the worst possible kind. As far as his knowledge of Dr. Priestley's life went, he could not find that, beyond a strong dislike for oppression and wrong, and a passion for that which was just and true, he was in any sense a man of revolting or subversive tendencies. And yet we found him regarded by his contemporaries with this extraordinary terror and hatred. It was quite true that he opposed, from conscientions conviction, the Church Establishment, and it was also true that he agitated for the repeal of the Test and Corporation Acts, under which it was impossible for any Dissenter to serve his country in any important civil office; but now-a-days any gentleman who would maintain the principle of those Acts would be regarded as a political lunatic. (Laughter and applause.) It was true that in 1700 and odd one minister

was found who declared that those Acts were the bulwarks of the Constitution, but it was a most singular thing that the Constitution should grow stronger as its bulwarks were taken away. (Renewed laughter.) It was said that if they repealed the Test and Corporation Acts church rates would follow them, and that even Jews would be admitted to Parliament. It was not wonderful that these far-seeing statesmen should be terrified by those phantoms which they had conjured up. He had seen the time when we had summoned them to attend in our presence and had shown some of them to be as empty as a bubble. It was quite true that for the present Parliament had declined to interfere with the Church Establishment, but contrary opinions could now be held by a man without his being regarded as a political maniac or his property being endangered. We found that these things, for which Dr. Priestley contended, had most of them been with common consent conceded, and the others were subjects for free and open discussion. This was a sufficient justification, to his mind, for the honour they had done to Dr. Priestley's memory. Some reparation and apology for the wrong done him lay in the changed spirit and circumstances of the time; and, although he did not suppose that the majority of the subscribers to that monument looked with greater sympathy on his religious opinions than people of his own time, yet, at all events, they had admitted the principle of the right of free discussion and frank expression of opinion. He did not believe that any of the opponents of his views, now-adays, whose opinions were worthy of the slightest consideration, would refuse to join in the address which was presented to him by the various orthodox societies of Nonconformists shortly after his persecution, and in which these words appeared :- "Differing as we do from you in opinion upon various doctrinal questions, we unite in lamenting that the spirit of bigotry, which would have disgraced the darkest ages of Christianity, should have discovered itself in this country at the close of the eighteenth century, and particularly that its fury should have been principally directed against the person whom we presume any country on the globe would be proud to call its citizen." (Applause.) He felt it was

impossible for any lover of his town to look back upon the shameful history of Priestley's time, without a sense of shame and humiliation. They were doing, however, what they could to make humiliation. They were doing, however, what they could to make reparation. He, at all events, rejoiced that the temporary alienation had passed away, and that the town over whose municipal destinies he had the honour to preside had now, by common consent, become one of the freest towns in England-a town where a man may say the thing he will, where questions upon all matters important and vital to the maintenance of social, religious, and political life were discussed with perfect openness and candour; a town where, indeed, the discussions sometimes waxed warm because of the earnestness with which they held their several convictions, but a town in which they seldom forgot the courtesy and respect which were due to honourable opponents, and where friendship and private esteem remained untouched and unstained by public differences. (Loud applause.) He had to propose "The memory of Dr. Priestley," and he had to couple with the toast the names of Dr.W. O. Priestley, his nearest male descendant in this country. and of the Rev H. W. Crosskey, the minister of the church over which Dr. Priestley once presided. (Applause.)

Dr. W. O. Priestley, in responding, expressed his opinion that his ancestor was in advance of his time, not only in science, but in politics. It was his pleasing duty that day to congratulate the sculptor, Mr. Williamson, on having produced, not only a work of art, but also a statue which so forcibly reminded the lady who had seen Priestley how very like her grandfather it was. That, he trusted, would be a source of great gratification to the sculptor, and he hoped that in his future work he would be as successful.

The Rev. H. W. Crosskey rose, as the representative of the congregation which had the honour of the services of Dr. Priestley, and the members of which suffered so severely with him in those troublous times, to respond to the toast. They could not claim, as they did not wish to claim, the celebration of that day as in any sense a party or sectarian triumph. The fact could not be hidden, however, that Dr. Priestley was driven from Birmingham, and ultimately exiled from his country, because he was an heretical

Unitarian, as well as a Radical politician. The statue was not erected to him either as a heretic or a radical, but as an independent and courageous man. It not only paid him reverence as a scientific discoverer, but declared before the town and country that a Unitarian could be as honourable as a Trinitarian, just as a Trinitarian could be as honourable as a Unitarian; and that no difference of belief should cast a shadow upon an illustrious memory. He might be permitted to point out one or two matters in which he believed they were carrying out the spirit of Priestley. Priestley was a scientific student, whose religious faith was strengthened by his scientific studies. It was for the glory of religion that whatsoever could be established as scientific fact should be accepted as divine truth. Priestley, in the conduct of his religious services, did not advocate any narrow exclusiveness, but tried to cherish a noble, generous, and sympathizing spirit. Regarding his political principles, they sprang from his religious faith. He for one could thoroughly understand that kind of passionate enthusiasm with which his generous spirit looked upon the first outbreak of the French Revolution; believing that the wrongs of centuries had come to an end, and that some hope had arisen for the practical acknowledgment of the rights of man. The excesses ultimately committed he did not anticipate; but his was the prophet's error, seeing a glorious future more nearly at hand than the sad facts justified. They looked upon that statue not only as one to Dr. Priestley, but to human liberty in its most perfect form. It was rare to find a perfect love of liberty. Some claimed liberty to pursue science, but faltered when it was also demanded for religion. Others confined their love of liberty to struggles for the franchise and kindred questions; but had no idea of knowing liberty when it touched things appertaining to the kingdom of God. But Priestley defended by his speech and in his martyrdom the perfect liberty of man. It seemed to him that the cruelest persecutions fell upon the tenderest hearts. Those who knew Priestley spoke of him as the most loving of men. God seems to permit his gentlest children to be most cruelly outraged, that they may receive the warmer devotion of sympathizing hearts. The congregation representing the church to which Priestley ministered desired to cherish his spirit, and, while true to their own opinions, to live in charity with all, judging generously amid all differences of thought and defending for others the liberty they claimed for themselves. They were thankful that no dark shadow of prejudice now stood between Priestley and his fair fame. (Applause.)

Mr. George Dawson proposed "The Learned Societies." He said that although he had pleasure in proposing the toast of the learned societies, he would not tell them their names, because they would sound a very long catalogue indeed. From the starry firmament above us to the bones that were within, these societies had their range of examination and thought. Each of them set out to discharge a function, and they believed they intended to do it by all human means at their disposal. One of their greatest objects was to help men of science to do what they desired to do without going round with patterns soliciting orders, and being asked in return for immediate results. (Laughter.) If there was anything more pestilent and more difficult to stand than another, it was for a scientific man to be waited upon by "our Brother Somebody," and asked for some invention or discovery which would be immediately valuable and profitable to society. What they wanted in science was a class of men set free from the cares of the world and at liberty to pursue their investigations in quietude and ease—not, perhaps, having the glorious courage of Priestley, who, however small his income, was never in debt, but fostered, shielded, encouraged, and protected, so that they might march forward on the road to discovery without the slightest anxiety as to whether the discovery, when really made, would be profitable and useful to the world or not. When a man of science had to struggle against all kinds of outside difficulties, when he had to carry a bag and patterns about him; when he had to inquire for orders, and had to explain whether his invention was so expensive as not to be profitable, or so recondite as not to be useful, he had no chance. If this country were civilized, which it was not (laughter), he hoped the necessity of the amazing

sums of money paid to the medicine and mystery men called priests would be done away with, and a fund formed to maintain a number of men who should have nothing else to do but to study God's works, and leave it to the fore-ordained things which were in God's work, whether their discoveries were of this practical utility or the other. (Applause.) Now we were in perhaps only the infancy of the struggle, but he hoped that by the agency of these learned societies the result he should desire to see would in time be arrived at. Whether all these societies were doing the work they set out to do he could not say; he should not like to say. But they were willing to do it—that he knew. Take the great science of chemistry, for instance. Why should not Birmingham have a laboratory of its own? In a great town like this, where so much depends upon chemistry, and where so much was gained by the application of chemistry, it was discreditable that there should be so few facilities for the practical study of the science. In Germany every town, small and large, had a laboratory, completely fitted up with everything a chemist could want. If a laboratory, perfect in its appliances, were established in Birmingham, any future Priestley might not be driven to the poor shifts he was. Though they might admire what he did with the materials he had, yet they all knew that he had spent much time in manufacturing what he might have purchased, if he had had the money. These societies did very good work in England: and he was glad to see there were several representatives here. He was very thankful to Dr. Huxley for shirking nothing as to the treatment received by Priestley at the hands of those learned societies. He had told them that the men who had treated Priestley badly were scientific men. Scientific men had their bigotries, their narrownesses, their exclusivenesses -they were as bad as priests sometimes. The Royal Society once turned the cold shoulder on Priestley when he most needed its aid; but the society was differently constituted now, and if Priestley came back again, he (Mr. Dawson) believed they would not do as they did before. (Cheers.) He hoped that the society would continue to do good: and that above all things it would not allow

that most beggarly and most degrading of all prejudices, the odium theologicum, to have anything to do with its councils. (Cheers.)

Dr. Olding, in responding, said there were certain subjects

in science in which most people took a common interest, and it so happened that there were two of these societies for the promotion of science which, perhaps, had a more especial claim upon that company as being connected with Priestley. Those were the Royal Society, which was the means of making known the great intellectual power of Priestley, and that his reputation became as wide as the world. With regard to the circumstance alluded to by Mr. Dawson, that at the time of his troubles the Royal Society turned a cold shoulder to him, it was to be regretted that the views held by the men of Birmingham, but now repudiated, were shared in by a considerable number of the members of the Royal Society; but it was in their capacity as fellows of the society, as co-workers with Dr. Priestley, that they appreciated his labours so highly. There was another society which Dr. Priestley was more immediately connected with, but which did not exist in Dr. Priestley's time. It was the Chemical Society. It was as a member of the Chemical Society of England that he came to pay a tribute to the memory of one of the greatest chemists of England. There was no discovery equal in magnitude to that with which Dr. Priestley's name was associated. With regard to the views held by Dr. Priestley, we looked upon them as being so moderate in their nature that they might be held by the most moderate man, and were held by men who were considered so moderate in all things that hard words were said about them by those who were more extreme.

Professor Clifford also responded.

Mr. S. Timmins proposed the health of Professor Huxley, and spoke in high terms of praise of the excellent address with which he had favoured them that day.

Professor Huxley responded, and said: I trust you will excuse me doing more now than thanking you for the great honour you have paid me. I look upon the invitation with which the committee favoured me as one of the greatest honours of my life

—for I think it is a great honour to be supposed to be capable of doing justice to such a man as Priestley. (Cheers.) I am not an ambitious man, I don't care what people a hundred years hence may say about me. As the man said, "They have done nothing for me." But if I had a posthumous reputation, or if I cared for a posthumous reputation, I know of no man the life of whom I would sooner lead, and no reputation with which I would sooner go down, than the proud inheritance of Joseph Priestley—a man honest and truthful in all his doings, guided by no personal interest or hope of reward, and who feared no man. (Loud cheers.)

Alderman Ryland proposed the health of the sculptor, Mr. Williamson. He had pleasure in conveying to that gentleman their obligations to him for producing such a magnificent work of art, and their admiration of the statue. He was quite sure that he expressed the general opinion of all who had seen the statue when he said it was most worthy of the man in whose honour it was erected. (Applause.) He congratulated Mr. Williamson upon connecting his name with so admirable a statue, and so good a man.

Mr. Williamson, in returning thanks, said he was more than rewarded for all the study and trouble he had had by the many kind and flattering remarks which had been made that day. His first public acquaintance with Birmingham was so happy and so flattering that he hoped that would not be the last occasion on which he should visit the town. (Applause.)

Mr. Timmins, in proposing the health of the Mayor, said he was glad that the unveiling of the statue to Dr. Priestley had taken place in the mayoralty of one who was so well able to perform such a duty as the one he had performed that day.

The Mayor having briefly responded, the proceedings terminated.

CELEBRATION AT LEEDS.

Leeds being the town where Dr. Priestly resided at the time he made most of the experiments which resulted in the discovery, in 1774, of oxygen, the occasion of the centenary of that wonderful addition to our scientific knowledge was celebrated here on Saturday, simultaneously with the demonstration in Birmingham. There was a peculiar fitness in a commemoration in the West Riding, seeing that the celebrated philosopher and chemist not only made many of his experiments in Leeds, but was a native of this part of Yorkshire, having been born at Fieldhead, near Birstal. The Leeds commemoration took the form of two meetings, at which addresses were delivered on Priestley's life and labours, and practical illustrations were given of the important discoveries he made. These meetings were held in the Philosophical Hall, and were attended chiefly by persons interested in scientific pursuits, the general public being very meagrely represented. A number of the members of the congregation worshipping at Mill Hill Unitarian Chapel, where Dr. Priestley occupied the position of minister during the time he spent in Leeds, were present at the meetings. Dr. Clifford Allbutt, the Rev. J. C. Odgers, Mr. W. Sykes Ward, Mr. Joseph Lupton, Mr. Arthur Lupton, Mr. Darnton Lupton, Mr. George Buckton, Mr. R. Reynolds, Mr. Thomas Fairley, Mr. S. Jefferson, Mr. E. Thompson, Mr. Thomas Hick, Mr. William Todd, Mr. G. W. Bennett, Mr. Burnett, Mr. Washington Teasdale, Mr. Charles Rider, and Mr. Bettany were amongst those who attended the commemoration.

Dr. Clifford Allbutt, who was the president of the afternoon meeting, spoke of the great value to the science of chemistry of Priestley's labours, and especially of his discovery of oxygen, which, he pointed out, was in a large measure due to the opportunities and facilities for carrying on chemical researches which Priestley had while residing in Leeds, though it was not till a subsequent period of his life that he announced to the world the

actual discovery of the gas with which his name is now associated. He paid a high tribute to Priestley's patience, industry, perseverance, and skill in the study of chemistry, and reminded the audience that all great discoveries were the result of prolonged industry, immense care, and philosophic research. There were many persons equal in their mental acquirements to Priestley and other discoverers, and they had only to be equally industrious and equally enthusiastic to be equally successful. Dr. Allbutt, in the course of his address, emphatically condemned the attempt that was made by the French chemist, Lavoisier, to deprive, not merely Priestley, but England, of the honour that was due to the discovery of oxygen.

A paper on the leading incidents in Priestley's life was afterwards read by the Rev. J. C. Odgers, B.A., assistant minister at Mill Hill Chapel. Apart from Priestley's career as a controversialist, his history may be soon summarized. Though the son of a man engaged in the staple trade of the district—that of the woollen manufactures-young Priestley had his attention turned from mercantile pursuits to the work of education and the ministry. Trained under the care of Dr. Ashworth, the successor of the celebrated Dr. Doddridge, he, after filling the post of assistant minister, and subsequently that of tutor, removed to Leeds, where he undertook the pastoral charge of the congregation worshipping in the Old Mill Hill Chapel, and remained for six years. His activity whilst in Leeds was most surprising, but nothing engaged his attention so much as his experiments relating to electricity and air. In Leeds itself Priestley had not many scientific friends, but amongst them he numbered Mr. William Hey, the celebrated surgeon, one of the founders of the General Infirmary. They were strongly opposed to each other on theological subjects, but always remained good friends. The Leeds Circulating Library, which was founded in 1770, owed its origin to Priestley, and it is also said that the commencement of the Philosophical Society is in a great measure due to the discoverer of oxygen. It was while residing near the end of Dewsbury Road, in Meadow Lane—at that time literally a lane between the

meadows-that Priestley had his attention specially turned to the composition of air by witnessing the process of fermentation in the vats of a neighbouring brewery, and was led to make the experiments which culminated in the discovery of oxygen. Priestley left Leeds to become the librarian and literary companion of the Earl of Shelburne, afterwards Marquis of Lansdownc, and it was while in this capacity that, in 1774, he announced the discovery of pure, or as he called it, dephlogisticated air. With the Earl of Shelburne he remained for seven years, and shortly after leaving his lordship's service he assumed the position of a minister by accepting the charge of a Unitarian congregation at Birmingham. There some controversial works which he published, together with differences of opinion respecting the French Revolution provoked the populace to sack his house and destroy his library, manuscripts, and apparatus. The hostility towards him being continued elsewhere, Priestley resolved to cross the Atlantic. He took up his residence in Pennsylvania, and there, in 1804, he died at the age of seventy-two years.

At the conclusion of the paper by Mr. Odgers, Mr. Thomas Fairley, Professor of Chemistry at the Leeds School of Medicine, gave a short sketch of the Theory of Phlogiston, as held by Priestley, and the circumstances which have led more recent chemist to disagree with him in his interpretation of the phenomena of combustion. The lecturer illustrated his remarks by means of several interesting chemical experiments.

The services of Mr. Odgers, Mr. Fairley, and Dr. Allbutt were duly acknowledged by the audience after Mr. Thomas Hick, Mr. Bettany, Mr. William Todd, Mr. Washington Teasdale, and Mr. William Sykes Ward had spoken of the value of Priestley's discoveries, and the services those gentlemen had rendered in connection with the centenary celebration.

The important part that oxygen, Priestley's great discovery, plays in the universe, received admirable illustration in the evening at the hands of Mr. S. Jefferson, Professor of Chemistry, Leeds. He quoted very largely Priestley's own account of the experiments he made, and the conclusions at which he arrived;

and, by bringing to his aid the appliances of the demonstrator of chemistry, Mr. Jefferson was able to make very clear to his audience the special features of Priestley's discovery. Mr. A. A. Pearson also exhibited the oxy-hydrogen light, one of the results of that discovery.

In proposing a vote of thanks to Mr. Jefferson for his admirable lecture, Mr. E. Thompson remarked upon Priestley's wonderful industry and perseverance as a scientific investigator, and upon the immense services his labours have been to the chemists of the last hundred years.

Mr. Charles Rider, who seconded the proposition, referred to the smallness of the attendance, and regarded it as not creditable to Leeds that so little interest should be taken in the commemoration of such an important event to science as that of the discovery of oxygen, especially seeing how closely that discovery was connected with this town.

The establishment of the Yorkshire College of Science was adverted to by the next speaker, Mr. R. Reynolds, who proposed a vote of thanks to the president of the evening, Mr. W. Sykes Ward. Mr. Reynolds expressed a hope that the College would be the means of stimulating a love for scientific studies, and especially of extending and consolidating a knowledge of chemistry, with which the name of Priestley was indissolubly linked.

CELEBRATION IN PARIS.

The Centenary was celebrated in Paris on Tuesday by a meeting in the Salle des Ecoles. One of the Priestley family was present, and a photograph of the Birmingham statue was exhibited. The principal speech was delivered by M. Wilfrid de Fonvielle. He dwelt on Priestley's love of liberty, and on the distinction he earned by discovering a substance which constitutes more than half the mass of our globe. Frenchmen, he urged, ought to respect the memory of a man who was persecuted for vindicating the principles of their great Revolution, and who in exile was reproached with too great an attachment for them.

THE PRIESTLEY CENTENARY IN AMERICA.

We subjoin from the Boston Christian Register a report of the Priestley celebration at Northumberland, Pennsylvania:—

NORTHUMBERLAND, PA. Aug. 3, 1874.

We have been celebrating, during the past ew days, the Centennial of the grandest epoch in chemistry—the discovery of oxygen by Priestley—the man "who was always on the heterodox side of every question." It may be appropriate to say a few words concerning the quiet village of his adoption, and the house which he built at Northumberlaud, within whose peaceful walls his last days were spent. The green lanes, the placid river, the magnificent bluff of the Blue Hill opposite the town, must have combined to form a singularly attractive spot in which an exile might find a haven of delight, a refuge of beauty. The long, low, antiquated dwelling which he built has been repaired, the observatory removed, and the entire appearance transformed. Rushing trains of cars sweep by a dozen times a day before the very door-stone which his feet must have so often pressed.

On Thursday, July 30, 1874, and even for a few days previous to that, the gathering of pilgrims at the shrine of Joseph Priestley began to manifest itself. By Thursday evening the town was full of those who had come to honour him as a man of science, and to respect his sturdiness as a theologian, even when they could not agree with his tenets. The hospitality of Northumberland was expanded to its utmost capacity, and when "the force of stowing could no further go," several fine hotels in the place afforded ample accommodation.

The meetings of the Centennial were held in the school-house, a very large and convenient building, which the active citizens of the town have built within two or three years. On Friday, July 31st, at about 9.30 A.M., the large audience-room of the building

was filled by a crowd of considerably more than average intellectuality, not to mention the distinguished visitors whose names stand highest in the annals of American chemistry—Professors Hunt, Smith, Silliman, Horsford, Chandler, Coxe (State geologist of Indiana), Dr. Youmans, &c.

The exercises of the day were opened by a prayer from the Rev. Dr. Pynchon, of Hartford. A committee of six were appointed by Dr. H. Carrington Bolton, chairman. It was proposed, and carried, that all those present who were interested in the plan should give their autographs, to be bound and kept as a memorial. Sheets of paper were accordingly circulated for the purpose. The Silver Cornet Band of Northumberland enlivened the hall with music during the collecting of the autographs.

Prof. C. F. Chandler, of Columbia College, was chosen president of the meeting, and after a short address was followed by Colonel David Tagart, of Northumberland, who delivered the ensuing speech of welcome:—

I have been chosen by my fellow-citizens to offer to the learned and distinguished men and women who have gathered here to commemorate a grand discovery, and to honour a great name, a brief but earnest welcome. We cannot follow you through the wide realms of science, nor penetrate with you very deeply the mysteries of nature-for we know more about oxen than oxygen; and a great deal more about the whey of milk than the Milky Way; but we can move with equal step in paying tribute of respect and reverence to the illustrious man who, eighty years ago, found among "the rude forefathers" of this hamlet a quiet home; and seventy years ago an honoured grave. While in the lapse of everlasting time all human names must be forgotten, many ages will have come and gone and left their silent footmarks on the earth, before that of Priestley will pass from the memories and the records of his fellow-men. He has written it in letters of light and glory upon the highest, broadest pillar of the universe. By right of genius and labour he takes rank with the dead but sceptred sovereigns who still rule our spirits from their urns. Like the eagle, he built his eyrie upon the mountain-top, inaccessible to vulgar intrusions. In that pure atmosphere he dwelt, not above human spite, jealousy, and detraction—for it is easier to get below than above them—but above their annoyances. The shafts of bigots and fools were aimed at him, but they could not penetrate the triple armour which philosophy, enthusiasm, and truth had thrown around him. Like you, gentlemen, he made science his mistress, and with a pure heart and an untiring mind he worshipped her

"Through long days of labour, And nights devoid of ease,"

and to-day he stands with Galileo, Newton, Harvey, Franklin, Faraday, and Humboldt—grand, colossal, and enduring—one of the great high priests in the boundless and beautiful temple of nature. A brutal English mob could burn his dwelling, and in an hour of political madness and religious frenzy destroy the work of years; but it could not stay the indomitable energy of his genius, nor dim the lustre of his well-earned renown. More than eighty years afterwards his great name is a talisman to draw to this quiet village many of the most renowned knowledge-gatherers of the nation, besides several from New Jersey and Canada—an aristocracy of learning and intellect that can afford to look down from its high citadels of thought and achievement with pity, if not contempt, upon the mere vulgar aristocracy of blind accident -the painted caterpillars of pretentious, illiterate wealth. As I am not vain enough to suppose that any one cares to listen to me, when such illustrious names are upon the bills, I will merely reiterate to you, men and women of sense and science, in behalf of all my neighbours, a very sincerc and unfeigned welcome to our homes and to our hearts. And let me assure you most earnestly that we are not only willing but anxious to do all things possible to make you remember with pleasure your well-timed pilgrimage to the home and grave of the greatest discoverer of his time.

Most hearty applause followed this fine expression of welcome and goodwill; and after a brief response by Professor Chandler, the meeting proceeded to business.

Interesting letters were read from Professor Henry and Dr. Draper, stating their inability to attend the Centennial, but expressing great sympathy and cordiality.

A committee on telegraphing despatched the following message to the gathering of the chemists at Birmingham, England, assembled to unveil the statue of Priestley: "The brother-chemists at the grave to the brothers at the home of Priestley send greeting on this Centennial anniversary of the birth of chemistry."

A telegram was received from the committee at Birmingham to this effect. "To the American Chemists accombiled at Northum

this effect: "To the American Chemists assembled at Northumberland, Penn. Our marble statue representing Priestley discovering oxygen will be unveiled to-morrow, presented by the subscribers, through Professor Huxley, to the town, and accepted by the Mayor, and we greet you as colleagues engaged in honouring the memory of a great and good man."—(Signed, the Priestley Memorial Committee of Birmingham.)

A reply was sent from this side of the water: "Welcome despatch received. Professors J. L. Smith, Youmans, and Joy appointed to represent us in spirit at the unveiling of Priestley's statue."

During the morning Professor Croft, of Toronto, Canada, delivered an able and eloquent address on the life and labours of Dr. Priestley, in which he made mention of some facts not generally known. The chemical discoveries of Priestley would have established the fame of half-a-dozen men, and yet, strange to say, he was not thoroughly versed in chemistry. Many of his discoveries leading to the most brilliant results were accidental. The invention of soda-water is due to his discovery of carbonic acid gas; also to him must be attributed the discovery of means for the preservation of meat at the present day. It is strange to know that, while his discovery of oxygen completely overturned the old theory of phlogiston (or an inflammable spirit), Dr. Priestley remained a most fervent believer in it to his death; and his last papers show his desire and exertions to defend it. To few men is it given to see and know the full meaning of their labours, the complete signification of the dark, shapeless ores which they delve

out from the mines of scientific research. Priestley discovered carbonic oxide while living at Northumberland. He discovered fluoride of silica, and three-fourths of the principal gases employed by chemists. He seems to have been the first to notice the formation of water by the passage of the electric spark through atmospheric air, an experiment afterwards elaborated by Cavendish.

About noon the chemists adjourned, to make a visit to Priestley's house and "shed," as he calls it in his letters—the rough outbuilding where his experiments were performed.

On Friday afternoon Professor T. Sterry Hunt spoke on the subject of the century's progress in theoretical chemistry. He considers that Priestley was justly called the father of pneumatic chemistry.

At half-past six the assembly met on the village green, and visited Priestley's grave. He lies buried in a beautiful cemetery at a short distance from the town. In the absence of Professor Henry, the address at the grave was delivered by Professor Coppee, of Lehigh University. It was a most impressive scene—the sun touching the white stones as with a benediction just before he dropped behind the blue, waving outline of the hills: the soft waving of the grass; the throng of men and women; the faces of little children upturned with an innocent look of wonder, all unconscious of the grandeur of the event in which they were participating.

At eight P.M. Professor J. Laurence Smith, of Louisville, Kentucky, delivered a fine address on the progress of industrial chemistry during the past century.

On Saturday morning—"Oxygen-day"—the audience had the pleasure of listening to Professor Silliman on "Contributions to Modern Chemistry," in which he asserted that Priestley discovered the law of the diffusion of gases, although the fact is not generally known. The more we read of the labours of this wonderful man, the more we are astonished at the amount and variety of his attainments, the versatility of his genius, the breadth and depth of his soul which could fling off and away all that tended to impede its mighty career.

SERMON BY REV. H. W. CROSSKEY, F.G.S.,

Delivered at the Church of the Messiah, Birmingham, on August 2, 1874.

"And now, brethren, I commend you to God, and to the word of his grace, which is able to build you up, and to give you an inheritance among the sanctified."—Acts xx. 32.

I have chosen this text because it was the text of the last discourse Dr. Priestley delivered before he was driven from England, a victim to fierce and furious prejudices; and expresses the central purpose of his life. The chief end and aim of his abundant labours was to build men up "in faith and holiness;" "to raise and improve their characters, in order to give them au inheritance among them that are sanctified;" "to wean them from low pursuits;" and "to make them citizens of heaven." Finally meeting the charges urged against him, the last words he uttered from an English pulpit were these:—

"As to the charge of sedition, nothing that can by any construction be supposed to have that tendency has ever been delivered from 'this pulpit,' unless it be sedition to teach what the apostles taught before [Acts v. 29], viz., that we are 'to obey God rather than man,' and that in what relates to religion and conscience, we disclaim all human authority, even that of Princes, Lords, and Commons. In these things we acknowledge only one Father, even God, and one master, even Christ, the messenger or ambassador of God. If any doctrine be really false, being contrary to reason and the Scriptnres, it is not an Act of Parliament can make it true. Or if any action be morally wrong, as being contrary to natural justice and equity, it is not an Act of Parliament can make it right. But while we thus render 'unto God the things that are God's,' we 'render unto Cæsar the things which are Cæsar's '[Matt. xxii. 21].

"We are subject to every civil 'ordinance of man for the Lord's sake' [1 Peter, ii. 13], though not their ordinances relating to religion. And whether we think any particular regulations to be wise or not (and with respect to things of this nature as well as others, different men will think

differently), we submit to the decision of the majority, and are the friends of peace and good order.

"Learn, then, not to give ear to mere calumny; but, according to the old English maxim, suppose every man to be innocent till he be proved to be guilty, and in all matters of opinion allow to others the liberty you take yourselves. As for us, I trust we have learned of Christ [Matt. v. 44] to 'bless them that curse us, and pray for them that despitefully use us and persecute us.' In the language of the Liturgy, we pray that God 'would forgive our enemies, persecutors, and slanderers, and turn their hearts.'

"Whether, then, you come as friends or enemies; whether we shall ever see one another's faces again or not; may God, whose providence is over all, bless, preserve, and keep us. Above all, may we be preserved in the paths of virtue and piety, that we may have a happy meeting in that world where error and prejudice shall be no more; where all the ground of the party distinctions that subsist here will be taken away; where every misunderstanding will be cleared up, and the reign of truth and of virtue will be for ever established." *

Priestley's life and works can only be fairly understood and justly estimated when read by the light of his religious faith. Had he not been the religious teacher he was, he would not have been Priestley.

Speaking apart from the consideration of the particular views of Christianity which he ultimately adopted, it is impossible to imagine a type of character more specially fitted for a teacher of religion than Priestley's. His attachment to his profession as a Christian minister, and his refusal to surrender it for the sake of pursuing more thoroughly those scientific researches which brought him pleasant honour from all men, did not spring from any effort of a will irritated by opposition, but from the fact that the deepest interests of his life were hidden with God.

His early education was pervaded by deep religious influences. He describes his mother as a woman of exemplary piety, and his father as having a strong sense of religion, "praying with his family morning and evening, and carefully teaching his children

^{* &}quot;The use of Christianity, especially in difficult times." A Sermon delivered by Dr. Priestley, March 30, 1794.

and servants the Assembly's Catechism, which was all the system of which he had any knowledge."

The atmosphere of piety in which he lived was not poisoned by any bigotry. "I was brought up" (he writes) "with sentiments of piety, but without bigotry."

Believing when a lad that he should not be long lived, he was the more serious in disposition, and thought habitually of God and of eternity with an earnestness and care beyond his years. At the same time he was most anxious that his religious professions should not exceed his actual experiences. With a kind of thoughtful conscientiousness, rare among those impressed in early years with equal seriousness, he protected his piety from exaggeration, and was watchful over the personal truthfulness of his prayers.

He believed (as he had been taught) that a new birth produced by the immediate action of the Spirit of God was necessary to salvation; and at one time, not being able to satisfy himself that he had experienced anything of that nature, fell into great distress of mind. He could not reproach himself with any material sin, and yet feared that God had forsaken him. In spite of his consciousness that he sought the love of God, he did not attempt to find peace by exciting his imagination and persuading himself that he had passed through deeper experiences than he knew to have been his, but quietly bore the sorrow of his soul, until the light of Heaven led him to the still waters and the green pastures.

Religion was not merely one subject, which with intellectual curiosity he chose to study among many other branches of human investigation; it was "the fountain and light of all his day;" "the master light" of all his seeing.

Priestley pursued his religious studies (I am still speaking without reference to their doctrinal results) with a thoroughly open mind.

While still in the modern sense of the word orthodox, and without any dream of the chief heresies of which he ultimately became so pronounced a teacher, he resolutely opposed being sent to an academy in which he would have to subscribe his assent to ten printed articles of the strictest Calvinistic faith, and to repeat

it every six months; and was prepared to abandon his intention to become a minister rather than submit to a demand so fatal to the free pursuit of truth. His tendency at this time was not controversial. He did not refuse to subscribe to one set of ten controversial. He did not refuse to subscribe to one set of ten articles, because he had personally elaborated ten other articles in opposition to them. He was a young man filled with the deepest sense of the reality of religion; very prayful, but at the same time keenly anxious to be spiritually truthful, and unwilling to pledge himself to "printed articles," lest he should be led to overstep by a hair's breadth the boundaries of personal conviction.

Priestley's serious regard for religion did not lead him when a student into the grave error of confining his reading to any single class of books. His eagerness in the study of the Scriptures was intensified and not diminished by his intellectual interest in a wonderfully varied series of subjects. In the midst of his most ardent theological studies, he regularly and healthfully refreshed his mind by reading a Greek Play every week.

his mind by reading a Greek Play every week.

He became a minister of the Gospel through an over-mastering necessity of his being. The ministry was not a profession he adopted simply as one which would give him opportunity of study; neither did he enter it through the sudden impulses of a young enthusiasm, nor was he moved by the pressure of any strange disappointment, misfortune, or sorrow.

He became a religious teacher, thoughtfully, calmly, quietly, because he was a supremely religious man.

"When I was at the Academy (he writes) I never lost sight of the great object of my studies, which was the duty of a Christian minister, and it was there that I laid the general plan which I have executed since."

As a preacher he carried out the religious promise of the student. His earnest endeavour was to make a religious impression upon his hearers. Controversialist as he gradually became, his love of controversy was absolutely subordinate to his desire to persuade men to righteousness. Men began to regard him as a heretic almost before his opinions stood clearly recognized in his own mind as heresies; and while he himself was only thinking

of the religious welfare of his hearers, they were criticizing his "soundness." When minister at Needham, he complains, "I found that when I came to treat of the Unity of God, merely as an article of religion, several of my audience were attentive to nothing but the soundnesss of my faith in the doctrine of the Trinity.

I know no more beautiful illustration of a spirit of lowly devoutness, than the way in which Priestley, having vainly attempted to cure an impediment in his speech, found a gracious mercy hidden in it, and became thankful for it.

"Like St. Paul's thorn in the flesh, I hope it has not been without its use. Without some check as this I might have become disputatious in company; or might have been seduced by popular applause as a preacher; whereas my conversation and delivery in the pulpit having nothing in them that was generally striking, I hope I have been more attentive to qualifications of a superior kind."

Nobler spiritual use of a physical infirmity was never made.

He endured many of those trials preachers know so well, and laymen so seldom understand. For years he was one of those poor scholars, those poor parsons, who have ennobled the religious life of England. Although in the earlier years of his ministry he was not a Unitarian, his hearers detected some signs of the coming heresies, and dropped away until his salary fell short of thirty pounds per annum; and except for an "extraordinary five pounds" from different charities he "could not have lived." But his studies were eagerly pursued in every direction, philosophical and scientific, and still he preached with unfaltering faith. A neighbouring minister refused to exchange with him because "the more genteel part of his hearers always absented themselves when they heard that he was to preach." Years after Priestley had his meek and kindly revenge. Visiting the same district after he had become famous, and heing asked to preach in that very pulpit, the same people who had once systematically absented themselves, crowded to hear him. He preached to them one of his old sermons, "one of the same discourses they had formerly despised," and "they professed to admire it."

He never appeared in the pulpit as a mere political partisan; but always preached for the purpose of filling men's hearts with the knowledge and love of God; and when he discussed the cause of civil and religious liberty, justified it on those moral and religious grounds which it especially befits a minister of Christ to urge upon his countrymen.

In 1794, he wrote "I never preached a political sermon in my life, unless such as, I believe, all Dissenters usually preach on the 5th of November in favour of civil and religious liberty, may be said to be political. And on these occasions, I am confident that I never advanced any sentiment but such as, till of late years, would have tended to recommend, rather than render me obnoxious to those who direct the administration of this country. And the doctrines which I adopted when young, and which were even popular then (except with the clergy, who were at that time generally disaffected to the family on the throne), I cannot abandon merely because the times are so changed, that they are now become unpopular and the expression of them hazardous."*

When looked upon in itself, apart from the doctrinal contro-

When looked upon in itself, apart from the doctrinal controversies that have raged around it, I cannot describe a character more emphatically religious in its essential features than the character of Priestley. In his earliest years he received deep religious impressions from pious parents and friends. A solemn and serious interest in Christ, and God, and Immortality, was never absent from him. He strove most anxiously to protect his religious experience from the least shadow of insincerity. To Priestley theology was not a mere critical study, but the science from which he might gain a knowledge of some actual relations existing between man and his Maker of infinite practical worth. His mind was strengthened by liberal culture, and never closed to the reception of new discoveries. Although poverty was the penalty he was compelled to pay, he never altered the Gospel he preached, to suit the prejudices of his hearers. Had he relegated his religion to a secondary place, abundant honours would have been showered upon him; but with a zeal which should at least

^{*} Works, Rutt's Ed., vol. xv. p. 525.

have secured him the reverence of members of all churches, he persisted in regarding the sanctities of the Kingdom of Heaven as the supreme interests of the world.

Why was this man, who was so pre-eminently a religious man, driven from Birmingham, and finally forced to exile himself from his country as an enemy of God?

Passionate prejudice was awakened against him by the astounding dogma, that not the spirit in which God's truth is sought, but a special form of belief, must justify or condemn; and that, consequently, a religious man may find himself subject to the wrath of God, although his only crime be that he differs from his neighbours!

Yesterday, the town of Birmingham, through its official representative, paid just homage to the illustrious name of Priestley, as a man of science and a martyr, on grounds neither confined to Birmingham or England, but world-wide in their scope and justification.

To-day, we who meet for worship, as members of the church to which Priestley ministered, may fittingly remember his religious character and work. While it would be in antagonism to his sweet and generous spirit that we should recall the harsh memories of cruel wrongs, we can only be true to his high example of faithfulness by the vindication of great principles. Even within this church to celebrate the occasion as a sectarian triumph, would indeed be to attempt to pledge the celebration of yesterday to a false and unworthy issue. The triumph was a triumph of human liberty. It involved the public recognition of the conditions on which civilization itself depends; conditions of respectful reverence for independent thought; of noble honour for those who travel adventurously away from beaten paths; of regard for the power of God to take charge of his own truth, whatever it may be; without which selfishness and sensuality would resolve society into a confused contention of barbarous passions. This church, however, is especially identified with that form of religious liberty to which Priestley was personally attached. In the exercise of this liberty he formed convictions, many of which have grown up in our minds also; although in the exercise of this self-same liberty some of his opinions, notably those connected with materialism and the supposed absence of any proof of man's natural immortality, find few defenders among us. The freedom Priestley loved, and which we endeavour to cherish and defend, was freedom of speech upon the most sacred subjects that can engage the attention of the human intellect, as frank and open as freedom of speech upon the nature of the air we breathe.

I cannot speak without noting the nature of the tie which once existed between Priestley and this church: in deep thankfulness to Almighty God that He should have put it into the hearts of our fathers to have trusted his truth so absolutely, and to have also strengthened his servant, their minister, to bear his testimony and "endure unto the end."

On Priestley's removal to Birmingham, we meet with his acknowledgment to this congregation, through one who bore the revered name of Russell, for a generous contribution in support of the free investigation of theological truth. "At Mr. Wm. Russell's proposal (Priestley writes), I doubt not, some of the heads of the congregation made me a present of £200 to assist me in my theological publications." When, having succeeded Mr. Hawkes, he officiated as minister, with Mr. Blyth as his colleague, he gratefully remarks: "The congregation we serve is the most liberal of any in England." Touching the kind of liberty he enjoyed, he leaves us in no manner of doubt. In a liberty he enjoyed, he leaves us in no manner of douht. In a sermon preached at Birmingham on November 5th, 1785, he says, regarding the conditions of salvation, "If we confine ourselves to things that are necessary to salvation, we may stop whenever we please, and may even save ourselves the trouble of any inquiry or investigation at all; because nothing is absolutely necessary to acceptance with God and future happiness in some degree, besides the conscientious practice of the moral duties of life. 'What doth the Lord thy God require of thee, but to do justly, and to love mercy, and to walk humbly with thy God?' [Micah vi. 8]. But, certainly, we may mislead ourselves if we restrict our inquiries by this rule, as according to it Christianity itself may be said to be unnecessary; for do any of us think that a virtuous heathen will not be saved? Paul says 'that they who are without the law of Moses shall be judged without that law.' We have the law of nature and of conscience, and will be judged by that. But notwithstanding this, he thought it a great privilege to be a Jew, and a greater still, as it certainly is, to be a Christian; and these were questions relating to Christians, to which he thought proper to give his own closest attention, and invite the attention of others."

Again; "No subjects of inquiry or speculation, within the reach of the human faculties, are so great and interesting as those which in the most distant manner relate to the revelation of the will of God to men; respecting our conduct here and our expectations * Do you, in general, who are private members hereafter. * * of Christian societies, be at least so far the friends of free inquiry, as to throw no obstructions in the way of it. Allow your ministers the liberty that you take yourselves, and take no umbrage if, in consequence of giving more attention to matters of theology than you have leisure for, they should entertain opinions different to yours, provided that your agreement on the whole be such that their services are useful and edifying to you. After a laborious and perhaps hazardous course of inquiry, of the difficulties of which you can hardly be aware, it is no great hardship upon you to give them at least a dispassionate and attentive hearing. cannot force their opinions upon you. You will still have the power of judging for yourselves; and without hearing you cannot have even the means of forming a right judgment. And where an agreement cannot be had (and few persons who really think for themselves will agree in all things), you may exercise that mutual candour which is of more value than any agreement in speculation."+

That the faith of the congregation in liberty was fairly tested is evident from Priestley's confession: "I saw reason to embrace the heterodox side of almost every question;" a confession which, made in his earliest years, was abundantly justified in his manhood. How glorious the memory of our forefathers' trust in the great truth-seeker of his day! Surely it will protect this church against

^{*} Works, Rutt's Ed., vol. xv. p. 72.

[†] Ibid, pp. 79, 80.

any evil narrowness as "by a wall of fire" for all the years to come!

On the general question of religious liberty, with which the history of this church has been so intimately connected, the ceremony of yesterday may be taken as a high-tide mark by which to measure the progress of our race.

In the midst of the fever and the stir, the cruelty and injustice, the passionate prejudice and idle speech of life, human progress seems sometimes a vague sentimentality, a phrase to give point to a rhetorical sentence; little more.

Sometimes it seems that the brave and the just, the tender and the true, are but leaders in a forlorn hope of useless struggle against impenetrable strongholds. They fall and are judged as fanatics; or as wayward advocates of "views," which those who praise them most hasten to repudiate; and prejudiced ignorance holds its accustomed way.

Passions supposed to be conquered so often flame forth again; and falsehoods imagined to be dead leap up with such invigorated life, that in despair we are tempted to say, "let heaven, if there be a heaven to come, settle all." For centuries prophets have prophesied;—dreamers! Practical men of the world do not wish to be misled by those who create isles of the blest out of sunset clouds. To-day our faith in human progress is joyfully sustained against vague sentimentality and cynic despair, and the glamour of dreamland.

The shadow on the world's great dial has passed visibly onward. On the Sunday following the destruction of their church, the members of the congregation met for worship; Priestley himself being with difficulty dissuaded from his intention to attend and preach over the smoking ruins, from the text "Father forgive them, they know not what they do;" and they sang that hymn with which our service this morning was commenced:—

"We'll crowd thy gates with thankful songs, High as the heavens our voices raise, And earth with her ten thousand tongues Shall fill thy courts with sounding praise." God has justified their faith. The muttered accents of a disappointed wrath may still he heard, but cannot alter the fact that the town of Birmingham has accepted the statue of a Radical politician and heretical Unitarian—not because he was a radical or a heretic, but because he was a brave and good man; a discoverer and thinker—and has made open reparation before this country, and before man and God, for the fierce injustice with which it once condemned one of its greatest citizens.*

I cannot understand, however, the murmur of dissent from these proceedings. It has a meaning, and a meaning not unjustified by popular creeds. According to creeds professed by a certain part of the community, this man Priestley, whose unveiled statue now occupies its post of honour, "without doubt will perish everlastingly." He did not believe some doctrines esteemed by many as essential to the salvation of man. What can we say? Me who think that Priestley will be judged by God as worthy of eternal condemnation, are necessarily inconsistent in erecting a statue to his honour. Be it so. It is better to be charitable and inconsistent, than consistent and uncharitable. In truth, however, the idea that a special opinion about the nature of Christ can affect the future fate of a man like Priestley, has actually departed from the living faith of most intelligent men. It has become a fossil opinion, preserved in a confession of faith, as in an ancient rock; but not moving in the light of day. But those who murmur are so far right. The statue of Priestley is a witness to the decay of that awful practice of attempting to wield the terrors of the judgments of God against the independent thought of man.

Beyond the general recognition of religious liberty, what principles connected with the name of Priestley do we specially honour in this church?

Consider the privilege of having had an illustrious man of

The Mayor: "I have great pleasure in accepting, on behalf of the Corporation of the town, this worthy memorial of one of her greatest citizens." Birmingham August 1st, 1874.

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^{*} After uncovering the statue, Professor Huxley, addressing the Mayor, said: "I have been requested by the subscribers to the Priestley Fund to present to you, as the representative of the town of Birmingham, this statue of Joseph Priestley."

science as a teacher of religion. We are bound, as worshippers of God, to honour science, emphatically, earnestly, absolutely. Whatsoever is scientific fact must be accepted as Divine truth. The church to which Priestley ministered must ever place a firm and unyielding stress upon the sanctity of science. Because there is one Creator, the demands of faith must be in harmony with the ever-changing marvels of the sky, the growing grass, and the ripening harvest; with the mysteries and joys of life in its myriad forms, with the majesty of an infinite past, and the prophecy of a changeful future. The Universe, of which this world is an atom, is a thought of God. To understand a law of nature is to reach a rule of thought in the mind of the Everlasting. The outward changes of visible things are the movements of the Eternal Being. Since the life we have proceeded from the One Spirit pervading and sustaining the universe, our life must interpret the secret of the universe, and the interpreted secret of the universe must become a revelation of life. A strange and blessed harmony must prevail between the facts of nature and the sanctities of the soul. Scientific truth is Divine revelation.

The man of science may personally believe or disbelieve as he can; whenever he establishes a fact all the churches of the world become his debtors. Men who disagree with Priestley's theological opinious scarcely seem to understand how he can be honoured as a scientific man. Whatever the dogmatic faith or undogmatic scepticism of the discoverer of a natural law, that law is divine by its own inherent majesty. A scientific fact must fit into any creed that may be established upon earth, or it will be so much the worse for the creed and not for the fact. The scientific student does not invent a world out of his own fancies; he is an utterer of the oracles of God. Worshippers within the temple, when they would learn how to offer hymns of praise less unworthy of their mighty theme, must cry aloud, "Be ye lifted up, be ye lifted up, ye cverlasting doors, and let those who unfold the wonders of earth and sky enter in, welcomed prophets of the King of Glory."

Within this Church we have no test of political, any more than

Within this Church we have no test of political, any more than of theological partizanship; but we seek the Divine Spirit by

which God's will may be done "in earth as it is in Heaven," and inherit as a sacred trust the great charge of endeavouring to secure such social arrangements as will permit the free development of individual character.*

Although Priestley was persuaded not to attend the dinner given in commemoration of the French Revolution, which was the mere accident kindling the fire of riot, without doubt he sympathized with its purpose. The natural feelings of lovers of liberty in those days, when a hope of escape from the long oppressions of centuries dawned on Europe, have been depicted in immortal verse:—

"Bliss was it in that dawn to be alive,
But to be young was very heaven. Oh times;
In which the meagre, stale, forbidding ways,
Of custom, law and statute, took at once
The attraction of a country in romance!
When Reason seemed the most to assert her rights,
When most intent on making of herself
A prime enchantress, to assist the work
Which was then going forward in her name."

* Priestley himself was surprised at the odinm he incurred on political grounds. "As to the great odium that I have incurred; the charge of sedition; or my being an enemy to the constitution or peace of my country, is a mere pretence for it, though it has been so much urged, that it is now generally believed, and all attempts to undeceive the public with respect to it avail nothing at all. The whole course of my studies from early life shows how little politics of any kind have been my object. Indeed, to have written so much as I have in theology, and to have done so much in experimental philosophy, and at the same time to have my mind occupied, as it is suggested to have been, with factious politics, I must have had faculties more than human. Let any person only cast his eye over the long list of my publications, and he will see that they relate almost wholly to theology, philosophy, or general literature. I did, however, when I was a younger man, and before it was in my power to give much attention to philosophical pursuits, write a small anonymous pamphlet on 'The state of Liberty in this Country,' about the time of Mr. Wilkes's election for Middlesex, which gained me the acquaintance, and I may say the friendship, of Sir George Savill, and which I had the happiness to enjoy as long as he lived. At the request also of Dr. Franklin and Dr. Fothergill I wrote an address to the Dissenters on the approaching rupture with America, a pamphlet which Sir George Savill and my other friends circulated in great numbers, and it was thought with some effect. After this I entirely ceased to write anything on the subject of politics. except as far as the business of the Test Act, and of Civil Establishments of Religion, had a connection with politics."-Works, vol. xv. p. 524.

It seemed to many noble souls, when the Bastille fell, that the prophet's visions were to be realized, and the kingdom, and the power, and the glory of God, be made manifest upon earth. That historic dinner was a meeting of those who, as it proved, had too generous hopes for their race, and too large a faith in the speedy realization of ancient prophecy. Their enthusiastic zeal hailed the first trembling of the old fabric of tyranny, as though the heavens had opened and the Lord himself were descending "to redress the wronged balance of the world." Meanness often makes mistakes, and the mistakes of mean men are lightly judged. Selfishness commits a thousand blunders, and the world often vouchsafes to extend a great mercy to the blunders of the selfish. Let us be generous to the mistakes of patriots and the blunders of heroes. It is at least a venial offence to believe the kingdom of God too near its coming. How did Christ direct his disciples to begin their ministry? "As ye go, preach, saying, the kingdom of heaven is at hand." Not yet has that kingdom come, not yet has earth escaped from its iniquities; but the glory of the disciple of Christ is still to take upon his lips the burden of his Master's charge, and still to preach with unwearied faith "the kingdom of heaven is at hand!" I know that in these days there is a certain quasi philosophic method of thought, which challenges praise of freedom as rhetoric sentiment, and almost asserts that it is a

part of a "liberal" policy to give bigotry its way.

Why, it is asked, should a man be eager to propagate his own convictions? May he not be mistaken? Why should he be schismatical? Would it not be wiser for him humbly to be silent when he differs from the crowd? The Gospel of Christ which Priestley taught, and of which it is my privilege to be a minister, is a gospel which claims from society ample scope and room for a man to grow to the full stature of his perfect manhood. It is a gospel which regards governments as existing for the sake of men, not men for the sake of governments. It is a gospel which does not subordinate the worshipper to the church, but renders the church the instrument through which the worshipper can find his own Father and his own God. Our duty as religious men does not

require that we should support any one series of political measures, but it does require that we should judge all measures by their fitness for the education of free men. Our duty is one of eternal protest against a blind yielding to ignorant outcries, and of resistance to the pressure of any organization which would lead a man away from personal truthfulness of thought, character, and conduct.

In remembering Priestley's Unitarianism, we honour the method of investigation through which he became a Unitarian, and the independence with which, being a Unitarian, he confessed his convictions, far beyond the mere connection of his name with one body of Christians rather than another. It is absurd to suppose that all Unitarians necessarily endorse the opinions of any one preacher, however eminent; but they have one common love for those who can say to truth, as Ruth to Naomi, "Whither thou goest, I will go; thy people shall be my people, and thy God my God."

I cannot regret that Priestley was a theologian. Why should not theology be studied as well as chemistry? The relationships of the soul to the world, to Christ, to God, are of infinite import; and need not be degraded by trivialities, or perplexed by craft.

I am eager to know what this life is. What was its origin?

I am eager to know what this life is. What was its origin? What is its purpose? What will be its destiny? I look into the depths of the sky, and am profoundly thankful to the student who makes intelligible some fragments of its wondrous glories, and brings from the dim infinite glad tidings of the marvellous methods through which the creative energy of its Maker accomplishes his perfect work. I look into the depths of human life; I mark its bitter woes, its strange trials, its high hopes, its baffled aspirations. I feel the awful burden of its mystery hidden within its very sorrows; I note the prophecies of glories to come. Strange thoughts, that can neither be put to sleep by comfort nor conquered by disappointment, challenge the very Silence of Eternity to speak and make answer to their demands. I rejoice unutterably whenever a student strives to pierce the depths of life, as the depths of space, and bring tidings of its meaning

and its relationship to the Invisible Will by which it is guided, and by which its destiny will be determined. It is true all creeds must be more or less provisional; so are all scientific theories. The glory of man is to be an eternal follower of the light. We accept in this church the duty of regarding theology as a science, and pursuing it by scientific methods, in the hope of obtaining an ever increasing knowledge alike of our responsibilities and our destiny.

This church was under large obligations to Priestley as a religious educator. He was always teaching. He gathered the young around him in classified ages. He wrote books for their

use. He did not attempt to convert the world to his opinions by any spiritual coup d'état, but relied upon the influence of a large and generous culture.

Above all is Priestley's memory honoured within this church as immortal, through the religious worth of his character. His "Discourse on habitual Devotion," is one of the most thoroughly religious discourses in the English language, and nobly, although calmly, expresses the sweet yet earnest, the simple and childlike, yet thoughtful and profound piety of his soul. I have always been struck with the rare justice meted in this discourse, not only to those who feel religious emotions with warmth, but also to those with the constitutions of whose minds the fervour of devotion is incompatible. He declares that uniform care to glorify God in all our actions, and to preserve a conscience void of offence towards God and towards all men, will certainly be sufficient to entitle a person to a "glorious recompense of reward," to that "eternal life" which awaits all those who by nothing but "patient continuance in well doing, seek for glory and honour and immortality." "Whether we have those fervours of devotion which some feel and are apt to be proud of, or not, we shall experience that great peace of mind which all those have who keep God's law; and having lived the life of the righteous, our latter end will also be like his; the foundation of our joy being the testimony of our consciences that in simplicity and godly sincerity we have had our conversation in this world."

There is one sufficient answer to those who believe that the

favour of God is upbound with adherence to one selected creed; and that answer is, the actual existence of holy saints who do not receive it. What can be done with the facts? Behold this holy saint of God—Priestley. Simple minded; simple hearted; patient in tribulation; quietly seeking truth as the business of his days; never desiring revenge for cruel wrongs; in poverty content, and thankful for blessings vouchsafed, however humble; unostentatiously making discoveries which have quickened the intellectual life of the world; refusing to dwell at pleasant ease with his own favourite studies, because he believed that his duty called him to expose errors and overthrow superstitions; loving mercy, doing justly and walking humbly with his God, Priestley finally passed away from earth, with an absolute confidence that in the great mercy of his Maker he would be upraised to life eternal. What can we believe regarding the fate of such a man? I hear one of the elders whom John saw in sublime vision, answering and saying unto me "What are those which are arrayed in white robes? and whence come they?" and I reply with the seer who questioned him, "Sir! thou knowest." And again I hear his voice saying, "These are they which came out of great tribulation, and have washed their robes, and made them white in the blood of the Lamb. Therefore are they before the throne of God, and serve him day and night in his temple; and he that sitteth on the throne shall dwell among them. And they shall hunger no more, neither thirst any more, neither shall the sun light on them nor any heat. For the Lord which is in the midst of the throne shall feed them, and shall lead them to living fountains of waters, and God shall wipe away all tears from their eyes."

To pass through a troubled life with saintly purity, is to wear robes washed and made white with the blood of the Lamb indeed!

I have spoken this morning, I trust in no narrow spirit, to you, my brethren, as friends and members of the church to which Priestley ministered. Let his great example inspire us to a nobler faithfulness. Let this church be a church which is ready to accept a scientific discovery as a revelation of God, and which

opens wide its doors to all who bring from the heavens and the earth tidings of the great Creator.

Let it be a church which, believing in the glorious liberty wherewith Christ hath made us free, labours to remove all restraints placed artificially and unjustly upon the free growth of man; and which would help men to govern themselves, and themselves enter into the holy of holies to hear the living voice of their God. Let it be a church which never ventures to impose upon its members one pattern of belief, but cherishes, as beyond all price, chivalrous labour in the pursuit of truth, and simple reverence for the righteousness of God. Let it be a church active in good works; seeking to enlarge the moral and religious culture of its members; not desiring its own glory, but helpful to all, according to its power. Let it be a church which heartily welcomes all the saints of God, the virtuous heathen as the Christian Priestley, to the one fold of his great and tender love; a church which, however condemned, never condemns, and relies to the uttermost upon that heavenly mercy which shall at last make the blind persecutors and the happier victims of persecution alike understand a charity greater than their faith, and sweeter than their love.

We have a living monument to raise to Priestley's memory, a monument even nobler than that erected in glorious marble. Humbly and reverently we have to upbuild a temple of those "living stones" which are worshipful souls; a temple in which may be heard the full rich music of the Lord's great love, as it triumphs over our own weaknesses and sins, and claims us as the children of his kingdom for evermore.

SERMON BY MR. JOHN FRETWELLS.

Mr. John Fretwell, jun., delegate of the British and Foreign Unitarian Association, and of the Unitarian Consistory of Hungary, delivered an appropriate discourse on Sunday, the 2nd of August, 1874, on the Celebration by the American Chemists of the Centennial of the discovery of Oxygen by the Rev. Dr. Joseph Priestley, at Northumberland, Pennsylvania.

The speaker began by quoting the following words from a lecture delivered by Dr. Draper on the life of Priestley: "From this life we may draw the lesson 'Study to be quiet, and mind your own business.' We here see a great man effecting his own shipwreck on the shoals of politics and controversial theology. To what an eminence might Priestley have attained, if he had limited himself to those objects for which Providence had fitted him, and abandoned the vain pursuits in which he delighted to men of less intellect and force." He said that these words doubtless gave fair expression to the general opinion of those who devoted themselves to the pursuit of the physical sciences, no matter to what country they might belong: and as among his hearers were men who would doubtless one day take a high place in the scientific world, he would earnestly urge upon them his reasons for regarding the opinion of Dr. Draper as an error, which, if generally held, would be most dangerous to the welfare of society. churches called Unitarian were one and all a living protest against this error, and throughout England he believed the preachers of those churches, who revered Priestley the reformer even more highly than Priestley the discoverer, would draw lessons from his life directly opposed to those drawn by Dr. Draper. While the scientific student of nature would see God in the largest as in the smallest objects of physical research, so also the scientific student in history would recognize the fact that religious enthusiasm was one of the mightiest factors in the progress of humanity. The sages of Greece, and the prophets of Israel, saw clearly enough what was

morally right and wrong. But what availed their insight until the Son of Mary came, and conscious of his devoted filial relation to God, inspired those around him with such an enthusiasm of humanity, that they had power to change the aspect of the world. And so, too, before the Reformation, scientific men like Reuchlin and Erasmus could castigate the insolence of a proud hierarchy, but their words did no good till the religious men came. when Luther came, inspired with a holy devotion which led him to cast aside every thought except that of purifying the old church, his mighty voice raised such a storm that the moral atmosphere of all Europe was cleared, and the walls of the sacerdotal fortress were shaken to their very foundations. But this religious enthusiasm, grand and noble in its results if rightly directed, was a terrible scourge for mankind if the emotions which formed it were under the control of bad or foolish men. The elemental force which, guided by William of Orange or Oliver Cromwell, made a nation, would, if under the control of a John of Leyden, or some of the false prophets of later days, hurl men into destruction. If those men who represented the best statesmanship, the highest moral and scientific culture of our times, gave themselves the trouble to understand and to guide the religious instincts of the people—if, true themselves to the highest ideals of humanity, they tried to guide the people to these ideals as fast as the state of society would permit-what glorious service they might do! But when science and religion were divorced from each other, how terrible the result! From this point of view he would consider the services which Joseph Priestley the religious man of science had rendered to humanity by his controversial theology. Tracing the progress of religious thought in England from the time of the Reformation, he showed how intellectual Puritanism had found its highest expression in a Unitarian theology. He said that before Priestley's time, England's greatest poet, John Milton, her greatest metaphysician, John Locke, her greatest scientist, Sir Isaac Newton, were Unitarian Christians, and that all of them were distinguished not only by their protest against the corruptions of

Christianity, but by their warm defence of its permanent truths. The state of England in the eighteenth century was not unlike that of Greece and Rome at the time of Paul's preaching, or of all Europe before the Reformation. Lord Herbert of Cherbury, Hume, Bolingbroke, Hobbes of Malmesbury, and others had done so much to undermine the popular beliefs that some one had said there were Antitrinitarians in every parish in England, and yet not a professed Dissenter among them. Even the official priesthood of the Anglican Church was full of men who, disbelieving its dogmas, were content to read its liturgies without faith in them, and to receive its pay. Such men could not combat error; for that men of faith were necessary. And the two Yorkshiremen, the Dioskuri of the Unitarian movement in England-Lindsey and Priestley-were pre-eminently such men. It was their faith in Christianity which gave them the courage, one to turn his back upon the fleshpots of a Conformist Egypt, and establish the first Unitarian Church in England: the other to bear the odium which his Unitarianism cast upon him even in a Nonconformist church, and to renounce all the opportunities of success which his great scientific attainments opened to him, rather than be silent when his faith in God's truth led him to attack the corruptions which had overgrown it. Quoting from Priestley's letters to Bishop Horsley, he showed how Priestley even then had given to the Unitarian Church that quality which is still its proud boast, of being non-sectarian among the creed churches, excluding no one from its communion for intellectual differences alone. From the correspondence between Freeman and Lindsey, and others, he showed that, though Priestley's great age on his arrival in America, and the unfavourable position of Northumberland, had prevented him from gathering a large body of converts around him in Pennsylvania, he had yet exercised a powerful influence on New England thought long before he came to America, and thus paved the way for the Channing movement. He spoke of the practical business talent of Priestley as proved in his foundation of the Unitarian fund-his endeavour to promote the publication of a revised translation of the Scriptures. Referring to the remarks of some English and

German critics on the ephemeral character of Priestley's writings, he said that they served to cast seed which fructified in other men's brains, and so did more good than if, like Calvin's Institutes, or the Augsburg Confession, they had become fetters to bind men's minds to-day. The twenty-five years which followed Priestley's removal to London were a time of war in all Europe, and peculiarly unfavourable for the study of those subjects on which Priestley So his books did not meet with the attention which they deserved. Yet, on comparing some of Priestley's now forgotten works with the last products of the German Universities, he was surprised to find how many of these latest results of theologic research had been foreshadowed by Priestley—who had comparatively poor tools to work with. He firmly defended the vital truths of Christianity. The French scoffers had learned to respect Christianity in him, and his first work in America had been a reply to Tom Paine. He had, it is true, made mistakes. Just as his phlogistic theory had been confuted by the chemists, just as the Allied Powers had conquered France—spite of his fears to the contrary—so his philosophy, his theology, and his modes of Scriptural interpretation had been changed by those who had formed the Unitarian thought of to-day. Mr. Fretwell then showed how the writings of Channing, of Coleridge, of Martineau, and others had influenced the philosophy and theology of to-day, and gave a brief sketch of the tendencies of modern Unitarianism. He said that these, too, might be carried to a dangerous extreme, and prayed that the men and women in our churches might serve their generation to-day as faithfully as Priestley did his, and though we might have outgrown his philosophy we might imitate his purity of character, his moral integrity, his holy ideal of family life, his patience under misfortune, and thus by our lives prove the power of our Christianity to lead men on to a better and nobler life. In the afternoon Mr. Fretwell gave some sketches of his personal experience among the liberal Christian churches on the continent of Europe.

SERMON BY MR. GEORGE DAWSON, M.A.

At the Church of the Saviour, on Sunday, August 3, Mr. George Dawson, M.A., preached from the words in the Book of Job, "Who hath divided a water-course for the overflowing of waters, or a way for the lightning and thunder; to cause it to rain on the earth where no man is; on the wilderness, where there is no man, to satisfy the desolate and waste ground, and to cause the bud of the tender herb to spring forth?" Mr. Dawsou said there were two questions very distinct from each other, and which a wise man kept distinct: the one was, How is the world existing? and the other, Why does the world exist? What are the laws of human How came man into the world at all? The study of the facts and appearances that God had surrounded us with was an admirable one, full of pleasure, full of instruction leading to true devotion; but to trouble ourselves-except it might be by an occasional speculation as to why things were as they were—was unprofitable, for little could be said of it, and that little had been said by the Fathers. There were two great views of life, the taking of which depended ofttimes upon the mood of a man. One said of old that human life was either a pitiful farce, or a plaintive tragedy, according to the spirit in which people looked at it. the mocker it was a farce, and men and women were but ants, upon their little hill toiling and moiling for very little grain; foolish in their passions, feeble in their strength, ridiculous in their aims: like flies, for we know not why they moved, or like dancers when the music dictating the rhythm of the feet was altogether inaudible to the ear. But to the loving spirit the life of man in its sadness becomes a tragedy. Who looks with love must look with tears, and that which to the heartless or to those who were merely satirists seemed a farce, became at once a tragedy full of pathos, laying a constant tax upon the tenderest trust and faith. In what we called nature there were two great views to be taken also, and both

were true. One was a painful one—that was to watch nature until at last it seemed to be one universal preying one upon another. For as they looked at life they found that everything lived by the death of others, that there was a war always going on, that the weak went to the wall and that the strong won. Everything had its parasites, which, like the parasites among men, having been supported by it in the day of their weakness, sucked it dry in the day of their strength. They themselves that morning had consummated sacrifice, their jaws had been instruments of death, their necessities had led to murder, they had destroyed more life than they knew of, and more than they ever understood, and when we went into moral matters much of the same great painful rule seemed to be there, and what we sometimes called naturenot from carelessness, but from a pious reverence that would not let the wondrous name of God be too familiar-seemed so careless of what it had made that it continually suffered things to perish in order that others might live. Man might look at this view of life until he became despairing, but turn it round, turn these great facts to the light, and what were they but the one great moral law of self-sacrifice, all things suffering for all; and even when we entered into the spiritual region and listened to the cry of Christianity it had the same great lesson from Him who spared not his Son. From the Lamb slain before the foundation of the world down through the company of the martyrs and the apostles to the lowliest giver of a cup of cold water, there was the one great sweet and glorious law, "all things for all." There was no better thing for a man than to lay down his life for his friend. Thus it depended upon which aspect it was beheld, whether this great strange world was a great shambles, a great slaughter-house, full of tyranny, or whether it was one solemn, tender, lovely, loving place, where, from the lowest to the highest, it was written, "Not for himself lives any man, not for itself lives any thing, but that by ministrations, and by sacrifice, and by death, life shall hold on its way, and the greater and the better things in the future of God shall become possible for men." The latter was the wiser view to take. We always admired those who helped us to understand how things

are that are; therefore, it was that we gave honour to the man of science. We honoured one particular man of science—that patient, painstaking, candid, fearless, quiet, pure-minded, sweet-tongued, kindly-hearted man, whose labours for a while lay in this town, and whose exile from it was simply the result of brutal ignorance, led on by selfish and designing covetousness of power in high places. As some of them were not savants, it was desirable to take note of what real light for humble people, what real joy for pious souls, what new insight into the ways of God, what comforting in-lookings into God's marvellous wisdom came from that burning glass of his when he discovered oxygen. Reverting to the words of the text, he said they, perhaps, came a little out of human egotism. It seemed marvellous that there should be rain where no man was. We, economical by necessity, and bound by our little requirements to waste nothing, wondered that God should suffer rain to fall where we were not, and when we had no little pan to catch it in. We wondered, and then we understood. One of the widest lessons about nature was that the sandy desert, the wilderness, the Sahara, the great sea-all were necessary for all "The desert," people might say, "what have we to do with the desert of Africa?" The wind blew over it, and was tempered by its warmth. The iceberg played the same part, and thus the temperature of this country was regulated. Priestley discovered oxygen; he discovered, also, that plants evolved it, and, therefore, that they assisted us in breathing, and were a necessity of our life, for they preserved the purity of the atmosphere. They counteracted the vitiated poisonous things that got into the atmosphere, and without trees we could not do. So when Priestley taught us that lesson the plant gained a new greatness, and from the cedar of Lebanon to the hyssop on the wall we looked upon them as gracious ministers of the service of God. Priestley by degrees led to the discovery that plants in water tended to purify that water, and lo! man had his last joy and one of his loveliest, and the aquarium in the household, or the aquarium that was made a show of, became possible from a man's clearly understanding the office of the plant. And out of this discovery came

the last and gracious joy that motion was necessary for purification, and that, as motion in water extended its absorbing surface, so the great wave that climbeth up into heaven was but the extension of the water to do by its motion its great purifying work in the world. Thus they found that no vegetable in this world grew in vain; that from the mighty oak to the grass of the field, from the cedar of Lebanon to the hyssop upon the wall, all served mankind; that the far-off verdure that man's foot had never touched was purging the air that would one day reach us, and was now on its road; that we were debtors to every leaf in the world; that there was no tree that fell but we missed it; that there was no new tree planted but we were gainers by it; and that in this great work the rose and the nightshade both co-operated. The loveliest and the lowliest flower all worked together; and in this matter it might be said that plants worked together for good; all tended to make health and life possible. Therefore, though we might not know why God made what he had made, it was sweet to know how the things he had made worked together, and pleasant to understand that He had made nothing in vain. Where a farmer would lay every tree low, or where a mean fellow greedy of cherries unjustly slaughtered every blackbird that he might have more pounds of fruit, or where the pines were cut down as in Norway, where soon there would be no pines to cut, these men would find to their cost that all things waited upon all. The woods cut down meant the streams dried up, and the valleys no longer fertile; birds slaughtered, insects multiplied, and he who would not be interfered with by birds would be much consumed by crawling creatures. In like manner the hurricane was holy, and tender, and merciful, and gracious, and the whirlwind was a kiss, and the storms of God were the tender touching of his children for their blessing. So when tossed upon the sea by its long reaching waves one in ignorance might be inclined to wish them over, but when taught by the results this man discovered, welcome the long reaching of the waves when their crests went so high in the air, for every one of them was the extension of the power of the water to serve as a present promise of blessings to

us all. As by the sea margin there gathered often the foulness of the side, so when the tide came with its white robe twice a day, it came to purify, to cleanse, and to bless. So that these things that at first seemed so hard and painful, touched by the discovery that this gracious man with his magnifying glass made, vindicated themselves, until they rejoiced in the hurricane and understood the words of the Old Testament that God rides upon the storm for guidance, government, and blessing. He asked them to ponder upon these things, and they might help to make them look with kindly graciousness upon the effigy of him who worked amongst them, who himself was like a plant that helped to make life near him pure and pleasant, who had, too, ofttimes the wise man's fate, exile, and who, nevertheless, never faltered; for whatever might have been his creed he did hold always that where we saw not God's wisdom we knew God to be wise; where we could not understand his ways we knew they were glorious; and where for a moment we fainted and failed in seeing his goodness we fell back upon this-God is good, God is just, ever merciful, ever tender, and ever true.

CONTEMPORARY ARTICLES.

"Fraser's Magazine," October, 1874.

The name and fame of Joseph Priestley are well nigh forgotten. One of the most conspicuous celebrities of the latter half of the last century, his once brilliant reputation has nearly faded away in the latter half of this. In the annals of science the discoverer of oxygen must always occupy a distinguished place, though the claim made for him by some Americans to be esteemed the father of chemistry may be disputed. Within the limits of the theological sect which he championed against all comers with quenchless enthusiasm, the name of Priestley is no doubt still held in honour, as an ornament, if not now a defence. But for the general public, which is neither scientific nor Unitarian, Priestley's name is so far

from being a household word, that probably the majority of those who heard that a statue of him had been unveiled at Birmingham the other day, had to gain from Professor Huxley's inaugural lecture their first definite information as to the man's title to this distinction. Friend of Benjamin Franklin, opponent of John Wesley, first the acquaintance and later the antagonist of Edmund Burke, in his lifetime he enjoyed a notoriety inferior to neither of the illustrious trio; but, unlike them, Priestley's name, in the third generation after his death, calls up no familiar associations. The most various and voluminous, according to the Edinburgh Review, of all English writers, not one of his hundred works is now sought for outside his own denomination.

There must have been among the crowd of artisans and other inhabitants of Birmingham who thronged to witness the ceremony in his honour, a few sons and a good many grandsons of members of that furious mob which, eighty-three years before, burnt down his chapel, pillaged his house, and would have torn the worthy doctor himself to pieces if timely flight had not saved him; but we suspect that the perpetrators of this fiery exploit prescried a judicious silence as to their share in it, in their cooler old age, and left their descendants to learn, like the rest of the public, from the lips of their distinguished visitor, the reasons why their forefathers hated and hunted the guileless philosopher from the town. Not that the tradition of the Priestley riots has entirely died out of memory. By confession of the Mayor of Birmingham, Priestley owes his marble statue as much to this shameful persecution as to his literary and philosophic achievements. His panegyrist laboured, not without success, to prove that the man deserved the marble; but it is clear that his deserts alone might have failed to raise him on to the pedestal, had not a feeling of remorse haunted the civic memory of Birmingham. Their fathers burnt out the prophet of civil and religious liberty, and the children erect a statue to him by way of atonement. Professor Huxley's masterly oration glided lightly and delicately over this bit of local history, avoiding with much tact too offensive an exposure of the bigotry and stupidity of the ancestors of his audience. This reticence, however, must

have awakened in some minds the desire of knowing more about the occasions of that strange outburst of popular fury, and the character of its victim; and, as the limit of time necessarily confined Professor Huxley's address to a brief outline of the subject of his eulogy, we venture to lay before the reader additional gleanings from our study of Priestley's and contemporary writings.

Joseph Priestley was born near Leeds, in 1733, and died at Northumberland, in Pennsylvania, in 1804. His threescore and eleven years of mortal life, with the single exception of that ebullition of popular rage at Birmingham, are devoid of any features of marked interest outside the range of his literary and philosophic activity. Priestley lived in and for the logical development of his own mental germs. By hereditary descent pious, a Calvinist, and a Dissenter, he maintained his piety, exchanged his Calvinistic creed first for Arianism, then for Unitarianism, and deepened his dissent into ardent anti-State-Churchism, and, at last, into pronounced Republicanism. Springing from a respectable middleclass family, able to give him the best education then accessible to persons of their proscribed opinions, of weak health, intellectual tastes, and religious proclivity, he naturally embraced the career of a Dissenting minister. He filled a pulpit successively in Suffolk, Cheshire, Birmingham, and London, these pastoral charges being varied by periods of tutorship, and several years during which he was librarian to a nobleman.

From the first he was a diligent student, his attainments covering an extensive range, rather than attempting a thorough mastery of subjects. He left his college with some knowledge of the French, Italian, and German languages, also of Chaldee, Syriac, and Arabic, besides the classics and Hebrew. Every day while at the academy, and for some time after leaving it, he read ten folio pages of a Greek author, and usually a Greek play every week besides. Yet he was not especially addicted to languages. Theology, both by his profession and preference, claimed the first place in his studies, and philosophy was its favourite handmaid. General literature was by no means neglected. Indeed, few meu coul have exceeded Priestley in the amount of his reading, the variety

of his studies, and the ease with which he attained a respectable eminence in each. Before his collegiate course was over, he had entered upon authorship, and from that time onward his practice was to make the public the confidant and inheritor of all his intellectual acquisitions.

intellectual acquisitions.

Whatever the subject he studied, he formed his opinions—decided opinions—with great facility; and it must be allowed, too, that, in numerous instances, a happy instinct impelled him to seize at once upon right views of things, views often far in advance of his generation, and which brought upon him a flood of angry opposition, but have been now for a long time admitted to be sound by the general judgment. His opinions once formed, the next step was to print them. As Hop-o'-my-Thumb, in the child's tale, marked his way through the wood by dropping crumbs of bread as he went along, so Priestley marked his track through life by the books, tracts, pamphlets, sermons, and philosophical papers which he issued from the press in a continuous stream. He was an irrepressible controversialist, throwing down the gauntlet to all the world, and frequently challenging by name those whom He was an irrepressible controversialist, throwing down the gauntlet to all the world, and frequently challenging by name those whom he deemed worthy of his steel; and if any declined the contest, he seemed hardly able to think it could be from any motive but sense of weakness. Thus, he politely dragged his literary coattails before Gibbon, but failed to allure the wary historian into the lists. Love of controversy in Priestley was a form of his love of truth, for, though he generally had, or thought that he had, the good fortune to be on the right side, he fought in utmost candour, firmly believing that truth would be made evident by the ordeal of hattle, and honestly prepared to yield if unmistakably worsted. Authorship, polemical and didactic, appears to have been a necessary function of his mental organism. During his first pastorate he wrote his "Scripture Doctrine of Remission," in which he finally rejected the idea of any atonement for sin by Jesus Christ. Poverty compelling him to turn schoolmaster, he composed an English Grammar on a new plan for the use of his pupils. While occupying a professor's chair at Warrington, he produced a group of works on such diverse subjects as oratory, produced a group of works on such diverse subjects as oratory,

history, the laws and constitution of England, an essay on liberal education, charts of biography and history; and lastly, a work which proved an introduction to a new phase of his career, his history of electricity. From this time he became a student of physical science, or, as it was then termed, natural philosophy. Henceforth, by the side of the restless torrent of his polemical activity, flowed a quieter stream of scientific experiment and publication, which won for him high renown among the philosophers of Europe.

Priestley's genius comes as near as that of any instance we can remember to justify Dr. Johnson's strange dictum, that intellectual faculty is the same in whatever direction it be turned; that a man can walk as far east as he can west; that Newton might have written a great epic had he tried, and Milton might have discovered gravitation. Quite up to middle age, Priestley had manifested no peculiar predilection or aptitude for physical science. He was theologian and metaphysician. He had written upon history, criticism, oratory, and belles-lettres. His first communion with science was in the capacity of historian of other men's services in her temple. Once introduced into an interesting field of thought and investigation, it was his nature to want to know all about it; and recording other men's experiments led him to make some for himself. His experiments led to discoveries and to improvements in the apparatus employed. Residing hard by a brewery, he began to experiment upon the gases evolved by fermentation, and soon his important discoveries in pneumatic chemistry drew the attention of all Europe. It was fitting that his statue should be unveiled on the anniversary of the day on which he discovered oxygen.

When we consider the immense importance of this grand discovery, we wonder that it has not made a deeper impression upon the popular imagination. Newton's discovery of the law of gravitation, Harvey's of the circulation of the blood, are proverbially adduced as the introduction of new epochs in natural science; whilst Priestley's splendid contribution to the progress of chemistry, which furnished the key to unlock the secrets of all

material substances, has been merged into the common group of chemical analyses, without achieving for itself a distinct memory outside the range of that particular science. Abstract the knowledge of oxygen, and what to-day would be the value of all our sciences of inorganic matter and organized life? But not oxygen only, nearly all the gases own Priestley as the magician who first unloosed them from their imprisonment in solid substances, and revealed them to the wonder and enlightenment of mankind. Yet in spite of his illustrious services to science, Priestley hardly takes rank with the great high-priests of Nature. Partly, perhaps, because the versatility of his mind, and variety of his occupations, did not permit him to do justice to his own great discoveries; partly, too, we think, from a certain superficiality of his intellect, which contented itself with the bare facts, and could not penetrate to those deep and wide conceptions of universal laws which the facts reveal to more poetic natures.

Here we seem to see the point where Priestley's case, instead of supporting Dr. Johnson's view of the indifferent ubiquity of mental power, is a strong argument the other way. Priestley's mind was quick, clear, and logical; but it was deficient in imagination. He wrote verses at one time as a means of self-improvement, but he appears to be below the average in feeling for poetry and art. Music he tried to learn, but acknowledged his own incapacity; eloquence he had no pretension to, not only in speech, where a physical defect impeded him, but even in writing, though constantly employing his pen on the greatest subjects in a most earnest spirit. This lack of the imaginative faculty accounts for an apparent want of sensibility to the grandeur and mystery of the universe, which we seem to feel all along the line of Priestley's writings. This lack of awful reverence affects his treatment of the highest themes. To Priestley even God seemed quite simple in his nature, and ruled by principles of common sense in his providence.

Compare the cool, logical, contented Priestley, with that contemporary of his whom he regarded with benevolent compassion as an amiable and accomplished fanatic—John Wesley.

Wesley's faith, life, and labours assume more and more heroic proportions as we recede farther from him; and distance enables us to form a better idea of the magnitude of the man. dauntless courage, herculean toils, statesmanlike capacity, and grand human enthusiasm, are recognized as constituting one of the most powerful regenerating forces since the age of Luther, even by those who do not accept his religious opinions. But Priestley counts for little even in the religious development of the comparatively small fraternity to which he rendered such zealous services. If the deepest heart of mankind could be ruled by syllogisms, the Unitarian teacher would have borne off the palm, but there is a spirit in man the depth of which he could not probe. He was, as he reiterated on every occasion, a rational believer. The Jewish faith was, in his view, a simple republication of natural religion supported by miracles—that is, it taught monotheism and morality. Christianity added nothing essential to this, except the revelation of a future life, also accredited by supernatural evidence. It is pathetic to read now Priestley's treatises in defence of Christianity in which he advances with assured confidence a line of argument which, to say the least, is not felt in our day to be impregnable, and of itself convincing. If he had lived in a later generation, would he have become a Straussian?

Yet the man was sincerely religious, not the partisan of a sect only, but firmly persuaded that religion is the needful salvation of mankind, and that Christianity, according to his conception of it, is the one all-sufficient divine religion. We cannot but think that Professor Huxley did scant justice to Priestley's religious faith when he represented him as devoting his life to propagate "one particular hypothesis respecting the divine essence." Priestley was a fervid Unitarian, who would have entered the fire with Servetus in defence of his creed; firstly, because he believed it was true—and Priestley was thorough and heart-whole in his loyalty to truth; but secondly, because he believed the welfare of the whole human race was involved in the general acceptance of this truth. It was with him no mere abstract dogma respecting a

Being who might seem far above the limited range of finite faculties. He believed that his Unitarianism was Christianity, and that Christianity was the only sufficient moral force for the regeneration of humanity, hindered in its blessed work by human corruption, and to be restored by the fidelity of himself and others to its pristine purity and efficacy. Right or wrong, Priestley at least is clear from the charge of wasting his life upon "lunar politics."

In philosophy, Priestley was a materialist and a necessarian. Both these are burning questions of to-day, and with the fear of Professor Tyndall before our eyes, we will carefully refrain from dogmatizing upon them. But it is lawful for us to glance at Priestley's stand-point with respect to these fundamental doctrines as matter of history. The mischief of Priestley's materialism lay in its nomenclature. He did not conceive of matter as his contemporaries did, and as men in general still do; but meaning something else than they understood, persisted stoutly in identifying spirit with matter. To the public mind, matter was something solid, impenetrable, occupying space. Priestley rejected this definition, and conceived of matter as simply the power of attraction and repulsion situated in space, yet not so as to be impenetrable. His doctrine amounted, then, to this—that we know neither matter nor spirit, and that it is unnecessary, unphilosophical, and opposed to the indications of physiology, to believe in the existence of two originally distinct substances. His contemporaries could not understand him, nor does it seem that he himself had a clear mental grasp of the neutrality of the doctrine of unity in the essence or substance which underlies phenomena. His language implies that, somehow, matter has the hest claim to be regarded as reality, and spirit must be content with a secondary contingent existence. Until philosophical conceptions thoroughly pervade the popular mind, and impregnate the popular language, materialistic doctrines will always lie open to this misconception, and even the philosophers themselves will not be quite secure against confusion of thought. Priestley's assertion that the soul dies with the body, and owes its resurrection to the will of God, perplexed even the able and friendly Dr. Price. Priestley uses the following ingenious simile to illustrate his meaning:—

"I suppose that the powers of thought are not merely suspended, but are extinct or cease to be at death. To make my meaning if possible better understood, I will use the following comparison:-The power of cutting in a razor depends upon a certain cohesion and arrangement of the parts of which it consists. If we suppose this razor to be wholly dissolved in any acid liquor, its power of cutting will certainly be lost, or cease to be, though no particle of the metal that constituted the razor be annihilated by the process; and its former shape and power of cutting, &c., may be restored to it after the metal has been precipitated. Thus when the body is dissolved by putrefaction, its power of thinking entirely ceases, but no particle of the man being lost, as many of them as are essential to him will, I doubt not, be collected and revivified at the resurrection; when the power of thinking will return of course. I do not, therefore, think that anything I have advanced implies that the soul, that is the man, loses his existence at death in any other sense than that the man loses his power of thinking."

That last sentence looks like a partial retractation. The fact is, both Priestley and Price were lost in a fog, and neither could see the way out.

Priestley held to his necessarianism not less tenaciously than he did to his materialism; but here, too, whatever be our opinion as to the merits of the questions in themselves, it is not possible to overlook a certain immaturity in the Priestleian stages of the controversy. Priestley based his doctrine of necessity with unlimited confidence upon the simple proposition that every effect must have a cause; at a time when the meaning of these words, "cause" and "effect," and the nature of the relation between them, had not been so deeply pondered as they have been since. "Volition undetermined," he says, "would be effect without cause." "An effect without a cause is a thing impossible even to divine power, because it is impossible to power abstractly considered." Priestley speculated too much about God, and about things abstractly considered, for the good of his philosophy. His theology biassed him in metaphysics, as when he plainly declares

that if we once admit that an effect may be without a cause, i.e., that will may be self-determined, we undermine the only demonstrative argument for the existence of God himself. Toned down by the modern recognition, that natural causes and effects are merely bound together by a relation of constant sequence, and that we know nothing of real or efficient causes, all Priestley's elaborate proofs for necessity subside into the indisputable proposition, "Whatever is, is." As in the case of his materialism, so the doctrine of necessity involved Priestley in logical consequences very engage to the sentiments of his age, and some sequences very repugnant to the sentiments of his age, and some of them perplexing enough to his own mind. He gladly accepted the belief that all things are best just as they are, and will eventuate in a future of happiness for everybody; though it does not appear to have struck him that, if everything is the best possible now, the best possible of the future may perhaps also be inexplicable to human wisdom, and disagreeable in part to human liking. But to preserve moral responsibility, to vindicate the reasonableness of sorrow for sin, in harmony with his necessarianism, was a task beyond even the acuteness of a Priestley.

Heterodox both as theologian and as philosopher, and known to be constantly engaged with curious investigations into the secrets of Nature, Priestley would have been set down as a votary of magical arts, in league with the Evil One, had his lot been cast a few centuries earlier. Even in the last century, we may be sure that vague rumours of something uncanny about the man floated about the country side. But to have accused a Fellow of the

Heterodox both as theologian and as philosopher, and known to be constantly engaged with curious investigations into the secrets of Nature, Priestley would have been set down as a votary of magical arts, in league with the Evil One, had his lot been cast a few centuries earlier. Even in the last century, we may be sure that vague rumours of something uncanny about the man floated about the country side. But to have accused a Fellow of the Royal Society of having sold his soul to Satan would have been an anachronism, and a Protestant Dissenter was safe under the shadow of the Toleration Act from prosecution as a heretic. Obnoxious as he was to the orthodox mind in other respects, had Priestley left politics alone, he might have ended his days at Birmingham in peace, and the long row of his works on the library shelf might have been longer by several volumes. But Priestley was a Dissenter in times when Dissenters were political pariahs—enjoying an unmolested exercise of their religious principles, by the contemptuous toleration of the ruling caste, but

rigidly excluded from the rights of equal citizenship. This was more than enough to stimulate his active mind to consider the nature of government, the rights of free-born men, and the defective working of the vaunted British constitution. In this region he could hardly miss the perception of simple first principles of political science, which he no sooner saw than he published to all the world with his usual fearlessness. He was a Reformer half a century before the Reform Bill, and a Liberationist a century before the disestablishment of the Irish Church. Until driven from his native land, he was a sincere defender of the limited monarchy; but the limits he would set to it approach more nearly those we are familiar with than such as George III. and his Tory supporters were inclined to submit to. Priestley's political views were before his age, and his antipathy to a religious establishment made him the aversion of the High Church party.

For all this, his course might have ended in peace, but for the outbreak of the French Revolution. That terrible convulsion, in which feudalism crashed into ruins, and democracy sprang into life, full-grown and armed, was an unexpected portent watched with opposite feelings of alarm and hope by conservative and reforming minds. In the very year of the Revolution, an eager attempt was made by the Liberal party to procure the repeal of the Test and Corporation Acts, by which Dissenters were excluded from all Government offices and municipalities. This was defeated by a large majority, and failure did not serve to sweeten the temper of the oppressed.

There was then in London an association called the Revolution Society, not, as its name might suggest, a new combination to propagate French principles in England, but an old society formed long before, to commemorate and hold up the principles of our own glorious Revolution of 1688. This and other radical associations openly avowed their delight in the downfall of tyranny across the water, and loudly demanded a reform of representation at home. Drs. Priestley and Price were known sympathizers with these movements, and the famous sermon of the latter in the

Poultry Chapel called forth Edmund Burke's brilliantly eloquent onslaught upon the French Assembly. When even Burke, who had denounced the American war, abandoned his Whiggism to lead the cry of "The Constitution in danger," no wonder that the Tory party raised an Ephesian shout of "Church and King" all the country over. Priestley replied to Burke without much eloquence, but with a solid and provoking common sense by no means calculated to soothe the feelings of the Tory party.

About the same time, a High Church clergyman of Birmingham

About the same time, a High Church clergyman of Birmingham preached an excited sermon against the Dissenters in general, and Priestley in particular. Priestley, never slow to pick up the gauntlet, at once opened fire upon his antagonist and the Church party in a series of familiar letters to the inhabitants of Birmingham. At this distance of time, it is easy to see that the champion of civil and religious liberty held the right side in the combat, but one cannot review his share in the controversy without perceiving that his cool assumption of superiority must have been extremely galling to his opponents. Indeed, Priestley seems never to have taken into account that passion and prejudice might misunderstand and distort his language. Hence his adversaries culled from his books, and circulated, in and out of Parliament, detached sentences, which could hardly fail to exasperate the public mind against him. With the French Revolution actually in progress, the King virtually a prisoner, the Church stripped of its property, the nobility and clergy driven from the country, and seeking an asylum on our shores, how could bigoted adherents of our glorious constitution in Church and State fail to read revolution, arson, and murder, in such paragraphs as these:—

"It is nothing but the alliance of the kingdom of Christ with the kingdom of this world that supports the grossest corruptions of Christianity; and perhaps we must wait for the downfall of the civil powers before this most unnatural alliance can be broken. Calamitous, no doubt, will that time be. But what convulsion in the political world ought to be a subject of lamentation, if it be attended with so desirable an event? May the kingdom of God and of Christ (that which I conceive to be intended in the Lord's Prayer) truly and fully come, though all the kingdoms of the world be removed to make way for it!"

And again :-

"We are, as it were, laying gunpowder, grain by grain, under the old building of error and superstition, which a single spark may hereafter inflame, so as to produce an instantaneous explosion, in consequence of which that edifice, the erection of which has been the work of ages, may be overturned in a moment, and so effectually that the same foundation can never be built upon again."

Since by the "old building of error and superstition," Priestley intended nothing else than orthodox Trinitarian Christianity in general, and the Established Church of his own country in particular, what more was needed besides these two bold passages to mark him out as a would-be Catiline, a second Guy Faux, longing for the propitious time when the Tower of London should imitate the fate of the Bastille, George III. be dragged in triumph like Louis XVI., and English mobs raise the ferocious shout, "Hang all bishops to the lamp-posts!" It is true Priestley's rhetorical phrases were printed years before the French Revolution appeared above the horizon; but the French Revolution did appear, and Priestley applauded it; worse still, became act and part in it, by being elected a member of the French Assembly. This last fact was damning; yet Priestley went on replying to Burke, Madan, and Burns, as audaciously as was his wont.

Three significant dates will tell the rest of the tale. On July 14, 1789, the Bastille was pulled down by the populace of Paris. On July 14, 1790, France was declared a limited monarchy in the immense gathering in the Champ de Mars, and Louis XVI. swore to maintain the new constitution. On July 14, 1791, Pricstley's chapel and house at Birmingham were burnt down by an excited mob, and the Doctor himself only saved his life by timely flight.

This exact coincidence of dates is easily explained. On the latest of these dates, a number of radical reformers, Priestley's friends, assembled at a tavern in Birmingham to celebrate the anniversary of the glorious events of the preceding years. Priestley was invited to take the chair, but declined, from no pru-

dential reason nor any disapproval of the purpose of the meeting, but simply because convivial gatherings were not occasions in which he felt at home. The feasters were all respectable citizens and loyal subjects of course, but one has only to run one's eye over the list of toasts drunk at the meeting to see that their loyalty was of a mixed description. The first toast was very properly, "The King and Constitution." Then followed "The National Assembly and Patriots of France." The third was "The Majesty of the People." And so the list goes on, including such sentiments as—"The Rights of Man;" "May the People of England never cease to Remonstrate until their Parliament becomes a truly National Representation!" "May the Sword never be unsheathed but for the Defence of Liberty and the Country, and then may every Man cast away the Scabbard until the People are Safe and Free!" "To the Memory of Hampden and Sydney!" No reporter has handed down to us the eloquent speeches of these devoted subjects of King George, and enthusiastic admirers of revolution across the Channel.

The populace of Birmingham doubted the fervency of their attachment to the throne and constitution, and intended to give them an uncomplimentary serenade under the tavern windows. Mine host of the "Red Lion" or "Blue Boar" got wind of this, and advised his customers to make short speeches, and disperse early. Consequently, when the mob gathered, the patriots had flown. Then ensued a disgraceful riot, which gave emphatic denial to the claim of popular sympathy for the revolutionaries. Priestley's chapel was the first object of attack. As soon as it was in flames, the mob proceeded to burn another meeting-house, and after that they sacked Priestley's residence (from which the Doctor had but just fled in time), destroyed the contents of his laboratory, tore up his manuscripts, ruined his library, and set fire to the house.

We will relate the further proceedings in the language of a contemporary:—

"The depredations of the mob did not terminate with the destruction of Dr. Priestley's property. There was no armed force in Birmingham,

so that they continued their devastations with impunity. On Friday, about noon, they demolished the elegant mansion of Mr. Ryland, at Easy Hill. Many of the rioters who forced their way into the cellars got drunk, and perished by the falling in of the flaming roof of the building. these infatuated men were got out alive, but terribly injured. Ten dead bodies were afterwards dug out of the ruins. On Friday afternoon, July 15, the magistrates swore in several hundred additional constables, who attacked the mob at Mr. Ryland's house; but after a severe contest, in which several men were wounded, the rioters were victorious. Bordesley Hall, the country residence of John Taylor, Esq., and Moseley Hall, the property of the same gentleman, were both destroyed by the mob. Mr. Hntton's house in the High Street, with his stock of paper, library, and furniture, were destroyed or carried away; the houses of several other individuals were pillaged or burnt, and the whole of Saturday the shops in Birmingham were mostly shut, and business was at a stand; while such was the andacity of the rioters, that small parties of three or five actually levied contributions of meat, drink, and money. On Sunday the rioters proceeded to Kingswood, seven miles distant from the town, and destroyed the meeting-house and the dwelling of the Dissenting minister. together with the premises of Mr. Cox. The arrival of three troops of the 15th Light Dragoons on Sunday night, soon after ten, was announced by the sound of their trumpets and the acclamations of the inhabitants. Anxiety was succeeded by smiles of joy. The town was illuminated; the rioters soon dispersed, and order was happily restored without bloodshed. The loss of the different individuals by this riot was estimated at £60,000. and an Act of Parliament was obtained in 1793 to reimburse them."

Meanwhile, Priestley rode from refuge to refuge, until at last t appeared that he could be sure of safety only in the metropolis. Even here, however, he was a branded man. It was with difficulty he could rent a house to live in, and servants refused to fulfil their engagements when they knew who was their employer. Timid people declined to occupy houses adjacent to his, for fear the London mob might imitate that of Birmingham. His scientific acquaintance of the Royal Society gave him the cold shoulder. His sons found difficulty in the way of settling themselves in business on account of owning their father's name. Many people expected that July 14, 1792, would see Priestley burnt out from Clapton as he had been burnt out from Birmingham, and those known to be his friends were advised to remove their papers and valuables to places of safety.

Priestley endured all this odium and threatening with a calm and dauntless front for three years, and then, for his children's sake more than for his own, sought peace and safety in the land which had recently won its own liberty on the other side of the broad Atlantic: being, we suppose, the last of the long list of exiles for truth and conscience' sake who have left the shores of Britain to take refuge in the Western Continent. It is a sign of the detestation which the development of the French Revolution produced, that even in America Priestley was suspected and partially disliked on account of his citizenship in the French Republic.

Priestley was shamefully ill-treated. He had been a little injudicious in his choice of language, and more than a little irritating to his opponents by his confident air and provoking assumption of superior wisdom, but few now will dispute that in many, if not all, his political views, he had the good fortune to anticipate the general judgment of posterity. His error was excessive reliance on the effectiveness of what he held to be the naked truth. He did not perceive that sometimes truth requires to be clothed in parables, because "the people's heart is waxed gross, and their ears are dull of hearing, and their eyes they have closed." Nevertheless, one cannot but marvel that such a man should not only become scapegoat for the hour of popular rage, but that a deep and lasting resentment against him should abide in the intelligent classes. What had this man done that he should be shunned like one plague-stricken? His services to literature and science, taken together, were almost unequalled by any English contemporary; his public and private life were alike irreproachable; the most virulent breath of slander could never taint his honour, his honesty, his consistent and zealous philanthropy. He was no cynic, but a genial, kind-hearted, happy citizen of the world, greatly and deservedly beloved by his family and a wide circle of faithful friends. What offence had he committed that public opinion should add insult to injury by its unconcealed delight in the savage attack upon him?

Lovers of peace and order felt a little uneasy at first in this

approval of mob-rule; but the end was so grateful to their feelings that they could not speak harshly of the means. The correspondence published in the Gentleman's Magazine for 1791 reveals the state of public feeling at the time. One writer begins a tirade against Priestley with a pious ejaculation: "God forbid that any man should exult in the late devastations at Birmingham!" but at the close of his letter his piety has veered round to the opposite quarter, and he concludes: "I thank God that I have lived to see this test of the integrity and good principles of my countrymen." Another rejoices that "his own engine, the mob, which he vainly imagined he could wield with ability, and with which he has in frequent instances threatened the establishments of his country, has at last recoiled upon him with tenfold vengeance." Here is a letter penned in the month following the outrage:—

"SIR,—As you are a man of genius and learning, whose writings have done honour to your country, I am sincerely concerned for your sufferings. But, at the same time, I am surprised you could not foresee the consequences of that factions and rebellious spirit which your party had endeavoured to raise and foment. Could you imagine that sober and sensible people would tamely hear the present Government in Church and State atrociously vilified by a set of mischievous Republicans? Could you calmly and considerately suppose that these discontented and turbulent spirits could celebrate the triumphs of anarchy and confusion in France without giving offence to loyal and prudent Englishmen? Could you seriously think that the zeal of your party could propagate their seditions libels and infamous publications against the Government and an amiable Sovereign, without exciting a general horror and indignation?"

Clearly, public sentiment approved and adopted the action of the rioters. The Government seems to have acted with tolerable impartiality. Priestley recovered a large sum for damages, though not all he considered himself entitled to, and four of the incendiaries were condemned to death. But lapse of time rather deepened than diminished the general prejudice against Priestley. This is easily accounted for when we remember the terrible history

of the next five years in Paris. Despite the long interval since then, their memory still causes a shudder. What must have been the horror and alarm which those dread events produced at the time in the then Conservative England! Priestley was a citizen of the French Republic; he had publicly testified his "exultation and triumph at the success of the late just, necessary, and glorious revolution in France." After that, we can understand, while we condemn, the rancour cherished against him, and perceive that his retirement to America was almost inevitable under the circumstances.

Priestley's autobiography, continued by his son, a little book of two hundred pages, is well worth reading. One sees in it that, on the whole, Priestley lived a happy as well as a useful life, and those who are in search for the secret of happiness may get some useful hints from his narrative and reflections. Without touching upon deeper matters, there is something worth thinking about in the following, written by his son:—

"It will be seen from his diary that his studies were very varied, which, as he was always persuaded, enabled him to do so much. This he constantly attended to through life, his chemical and philosophical pursuits serving as a kind of relaxation from his theological studies. His miscellaneous reading, which was at all times very extensive, comprising even novels and plays, still served to increase the variety. For many years of his life, he never spent less than two or three hours a day in games of amusement, as cards and backgammon, but particularly chess—at which he and my mother played regularly three games after dinner, and as many after supper. As his children grew up, chess was laid aside for whist, or some round game at cards, which he enjoyed as much as any of the company. It is hardly necessary to state that he never played for money, even for the most trifling sum."

Dr. Priestley was not devoid of humour, as the following amusing anecdote shows. While he was minister at Leeds, a poor woman, who laboured under the delusion that she was possessed by a devil, applied to him to take away the evil spirit which tormented her. The doctor attentively listened to her statement, and endeavoured to convince her that she was mistaken. All his efforts proving unavailing, he desired her to call the next

day, and in the meantime he would consider her case. On the morrow the unhappy woman was punctual in her attendance. His electrical apparatus being in readiness, with great gravity he desired the woman to stand upon the stool with glass legs, at the same time putting into her hand a brass chain connected with the conductor, and having charged her plentifully with electricity, he told her very seriously to take particular notice of what he did. He then took up a discharger, and applied it to her arm, when the escape of the electricity gave her a pretty strong shock. "There," said she, "the devil's gone; I saw him go in that blue flame, and he gave me such a jerk as he went off. I have at last got rid of him, and I am now quite comfortable."

A neighbour of his in Philadelphia has left us a description of Dr. Priestley's qualities as a companion:—

"Dr. Priestley was remarkably frank and easy of access, and in company perfectly unassuming, never attempting to take the lead in conversation, but always ready to accommodate himself to the taste and wishes of others. He was neither taciturn nor talkative; and it may be truly said, that whatever prejudices had been previously entertained against him, on account of his theological opinions, by those who only knew him as a polemical writer, were removed on a personal acquaintance.

"During a time of great political excitement, he dined with a Presbyterian, whose political opinions were similar to his own. Among other guests, were two Presbyterian ministers, whose politics were opposite to those of Dr. Priestley and his host. When the junior clergyman was asked for a toast, he gave, 'Unity of sentiment in religion and politics.' Soon after, Dr. Priestley being called on, he looked significantly, first at the master of the house, and then at the author of the former toast, and proposed, 'Candour, when there cannot he unity of sentiment in religion and politics.' The young man felt abashed, and soon retired.

"With the sedateness suited to his age and professional character was combined habitual cheerfulness; and although strict as regarded himself, no one could be more liberal as respected other persons. It will be easily imagined that the society of a man whose knowledge was so extensive, and whose manners were so winning, was eagerly sought and highly valued.

"The Doctor, when in Philadelphia, would occasionally call on Dr. Rogers, a Baptist minister, whose sentiments were highly Calvinistic, and pass an evening at his house. One afternoon, while he was waiting there

for Dr. Rogers' return, another Baptist minister, whom we may call Mr. Blank, came in. On Mrs. R.'s introducing the two gentlemen to each other, Dr. Priestley put out his hand. The other immediately drew himself back, as if afraid of contamination, and exclaimed, 'Dr. Joseph Priestley! I can't be cordial.' The lady was greatly embarrassed, but Dr. Priestley instantly relieved her by saying, with all that benevolent expression of countenance and pleasantness of manner for which he was remarkable, 'Well, well, madam, you and I can be cordial; and as Dr. Rogers will soon be with us, Mr. Blank and he can converse together, so that we shall all be very comfortable.' Thus encouraged, Mrs. Rogers began to question Dr. Priestley about the Scripture prophecies. Mr. Blank listened with much attention, sometimes making a remark or putting a question. Dr. Rogers did not come in, but the evening nevertheless was passed in the greatest harmony. At last Dr. Priestley said it was ten o'clock, and time for two old men like them to be at their quarters. The other could not believe it was so late, and declared that he had never spent a shorter and more pleasant evening. They left the house together, and next day Mr. Blank called and said to Dr. Rogers: 'You and I well know that Dr. Priestley is quite wrong in regard to his theology, but notwithstanding this, he is a great and good man, and I behaved to him, at our first coming together, like a fool and a brute!""

Prefixed to his Life by John Corry, published in 1804, is a good likeness of the doctor. It is an intelligent and pleasing face; the forehead rather high, the nose aquiline and prominent, the expression of the mouth firm, but by no means stern, and the eye bright and cheerful. Corry thus describes his personal appearance:—

"Dr. Priestley was about the middle stature, or five feet eight inches high. He was slender and well proportioned; his complexion was fair, his eyes grey and sparkling with intelligence, and his whole countenance was expressive of the benignity of his heart. He often smiled, but seldom laughed. He was extremely active and agile in his motions. He walked fast and very erect, and his deportment was dignified. His common dress was a black coat without a cape, a fine linen or cambric stock, a cocked hat, a powdered wig (which, however, he laid aside in America), shoes and buckles. The whole of his dress was remarkably clean, and this purity of person and simple dignity of manners evinced that philosophic propriety which prevailed throughout his conduct as a private individual. He was an ungraceful orator; his voice was low and faltering, and he had a custom of shrugging up his shoulders."

The following estimate of Dr. Priestley, written in 1813, by Dr. Thomson, editor of the "Annals of Philosophy," and "History of the Royal Society," is borne out by our own examinations of his literary remains. Dr. Thomson says:—

"As to the character of Dr. Priestley, it is so well marked by his life and writings, that it is difficult to conceive how it could be mistaken by many eminent literary men in this kingdom. Industry was his great characteristic. He was an early riser, and always lighted his own fire before any one else was stirring; it was then that he composed almost all his works. It is obvious, from merely glancing into his hooks, that he was precipitate, and indeed, from the way he went on, thinking as he wrote, and writing only one copy, it was impossible that he could be otherwise. But as he was perfectly sincere and anxious to obtain the truth, he freely acknowledged his mistakes as soon as he became sensible of them. is very visible in his philosophical investigations, but in his theological writings it was not so much to be expected. He was generally engaged in controversy in theology; and his antagonists were often insolent, and almost always angry. We all know the effect of such an opposition, and need not be surprised that it operated upon Dr. Priestley as it would upon any other man. By all accounts, his powers of conversation were very great, and his manners in every respect extremely agreeable. That this must have been the case is obvious from the great number of his friends, and the zeal and ardour with which they continued to serve him, notwithstanding the obloquy under which he lay, and even the danger which might be incurred by appearing to befriend him. As to his moral character, even his worst enemies have been obliged to allow that it was unexceptionable. Many of my readers will perhaps smile when I say that he was not only a sincere but a zealous Christian, and would willingly have died a martyr to the cause; yet I think the fact is undoubted, and his conduct through life, and especially at his death, affords irrefragable proofs of it. His tenets, indeed, did not coincide with those of his country, but though he rejected many of the doctrines, he admitted the whole of its sublime morality and its divine origin, which, in my opinion at least, is sufficient to constitute a true Christian. His manners were perfectly simple and unaffected, and he continued all his life as ignorant of the world as a child. Of vanity he seems to have possessed more than the usual share; but perhaps he was rather deficient in pride."

Professor Huxley, in the outset of his address at Birmingham, lauded Priestley as "a modest man." With all respect to so great an authority, we cannot but prefer Dr. Thomson's view of

his character. Priestley was not ambitious, not haughty, not perhaps quite sufficiently careful of his own reputation among men in general; but a man more fully and complacently persuaded of the extent of his own abilities, the accuracy of his judgment, the correctness of his opinions, and the value of his services, one can rarely come across in the paths of literature. If self-complacency is an important element of happiness, Priestley appears to have contributed as much as most men to his own enviable state of mind.

After all, why does self-complacency seem contemptible? At least in Priestley it was better justified than in most notable men. He had no grave faults, and he performed great services to his age. He was honest to the core, and quick-witted above most; his literary labours were above the average, and his scientific discoveries rank him among the most illustrious savants; he was philosopher, patriot, philanthropist, and religious believer; and while recognizing his own worth, he did not hug it to himself in an egotistic spirit, but very sincerely regarded his whole career as a divine gift, a divine work, a part of the infinite stream of that all-embracing necessity which made him what he was, working above and behind the human delusion of a self-determining will.

His statue shines clean and white, as yet unsoiled by Birmingham smoke; and while for the moment public attention is directed to the actual life of the man, his character stands out solid and pure and shining upon the dark hackground of a half-forgotten past. When the statue is dimmed by soot and rain, the memory of the man may relapse into that semi-oblivion from which he has been temporarily summoned. Be this as it may, our retrospect has revealed a brave and admirable Englishman, of whom his country may well be proud, whether or no he eventually gains a place among the heroes who enjoy a world-enduring fame.

"INQUIRER," August 8.

A great act of public justice has been nobly performed. A statue bearing the simple name "Priestley" was unveiled on Saturday, August 1, in the proudest situation of which Birmingham can boast. Close to the great Town Hall, it will face the fine building now in course of erection for the Municipality, and be in the immediate neighbourhood of the Scientific College which the munificence of Sir Josiah Mason is about to establish. The authorities of Birmingham have done themselves honour in granting for the statue of Priestley a site as public as the wrongs he suffered. To render the reparation more complete, the present Mayor of Birmingham—who in the name of the town received the statue which Professor Huxley presented in the name of the subscribers—is himself a member of the "Church of the Messiah," the "New Meeting" of which Priestley was the minister, and which was burnt by the mob when he was driven from the town.

In 1791 the mob, more than connived at by those in authority, poured through the streets of Birmingham, shouting "Down with the Dissenters; Church and King; no false rights of man;" they set fire to the "meeting-houses," broke into Dr. Priestley's house, burnt his MSS. and books, and demolished what he describes as "the most truly valuable and useful apparatus of philosophical instruments that, perhaps, any individual in this or any other country was ever possessed of." In 1874 the town of Birmingham grants the most prominent site it possesses for the statue of Dr. Priestley, and with a certain poetic justice it falls to the lot of a Unitarian mayor, a member of the very church in which Priestley taught the doctrines that aroused such blind and passionate and ignorant hatred, to speak in the name of Birmingham and (in his own words) accept "on behalf of the corporation of the town this worthy memorial of one of our greatest citizens."

The statue is erected to Priestley—the attitude finely chosen — making the discovery of oxygen. No one part of his character can

be separated from another, and Priestley, the scientific discoverer, cannot be divided by any arbitrary line of judgment from Priestley the lowly worshipper of God and the lover of his Truth. Illustrious as a man of science, he was more than illustrious as a martyr to religious liberty. The key-note of his character is the simplicity of his trust in God. Every reader of his autobiography must feel that whatever Priestley may have written, or whatever he may have discovered, he was first and foremost, in himself, a religious man. Whoever, in attempting to praise Priestley, ventures to apologize for his religion, has not grasped the greatness of his spirit. He did not hold Unitarianism as a dry and abstract dogma; he became a Unitarian in the exercise of that religious liberty which he esteemed as of larger importance than attachment to any one form of thought.

It would be worse than foolish, it would be a repudiation of the spirit of Priestley, to claim this noble statue as a statue to a "Unitarian Divine;" but it is a statue to the free student of the truth of God, whose faithfulness to personal conviction no obloquy and no persecution could conquer. Priestley's place as a man of science appears to become higher as the range of scientific discovery extends. Dr. Odling, the president of the Chemical Society, came to Birmingham to pay his tribute to the memory of Priestley, and Professor Huxley declared that the service he rendered "by establishing the large and at that time novel body of chemical fact was such that his chemical posterity to all times were not likely to forget." Of Priestley as a man, it can only he said that love deepens into reverence the more thoroughly his spirit is understood. His devoutness was as unaffected as it was profound; his heart as gentle as it was hrave; while his tastes and joys were as simple as they were pure.

One only shadow fell upon the celebration of the day. It would have been thought that the clergy of the Church of England would have been anxious to have testified their regret for the passionate excesses of the past, and their homage for a great and good man, whose achievements in science have made the civilized world his debtor. The opportunity appeared made for them. They were

informed (if we are rightly advised) that their presence would be welcomed; and they would have heard no angry word of recrimination. Not one clergyman of the Church of England, however, did his Church the service and himself the honour of attending, and expressing their harmony with the spirit of an age of larger charity and more generous faith than the age of riotous cruelty and unworthy enmity. Orthodox dissent was represented, but not the so-called Church of the English nation. But this slight shadow cannot hide the glory of the day. No poor prejudices can henceforth stand between Priestley and the light of an honourable reverence. Lovers of religious liberty, as well as students of science, will make many a pilgrimage to Birmingham to see how a great town can express its regret for a passionate moment, by acknowledging in the persecuted outcast one of its most illustrious citizens; and with the aid of the artist who has nobly discharged a noble task, making public provision that his name shall never pass from the memory of a grateful and ennobled community.

"Unitarian Herald," August 7.

The ceremony which took place in Birmingham on Saturday last suggests many thoughts. Some see in it an act of penitent restitution, something like that which was made in the neighbouring town of Lichfield when Dr. Johnson stood bareheaded in the market-place, self-punished for his long-remembered disobedience; and this view of the ceremonial is not without its consoling thought of the certainty with which sooner or later even a Church and King crowd (for there is still much of the old bigoted Church and King feeling) lets its judgment come to the correction of its prejudices. Others find the only ground and consideration for this honour done to a man who was neither prince, nor statesman, nor general, in gratitude for a gift of knowledge, which the world

received from his successful scientific researches. They honour the chemist who has put into our hands the source of immense wealth and great physical improvement, without much reference in their own minds to the character of the man by whom the discoveries were made. Professor Huxley takes much higher ground and reads more accurately the feeling with respect to Dr. Priestley, of which this statue is the indication, when he says that the value of Priestley's life work lay in his attempt to secure that freedom which is the essential condition of the progress of science and the progress of the human race, and is a vastly more important matter than advancing knowledge in this direction or in that.

We feel that in these words Professor Huxley has expressed the true reason for the reverence in which the memory of Dr. Priestley is held. Not for the positive gain of knowledge or of wealth that he left us; but for the example that he set of a life which could be occupied in many researches, but was devoted to only one object; is our respect due to the memory of the philosopher of Birmingham and Leeds. No more timely lesson, in view of the mental tendencies of the present day, could be drawn from the occasion of this public recognition of Priestley's value than this which Professor Huxley teaches; that the duties of manhood and of citizenship are vastly superior to those of philosophership. That does not seem to us to be the fashionable and favourite thought now. We are accustomed to hear the words "science" and "scientific" used as if they were the passwords of a sect which is raised above all the ordinary responsibilities and anxieties of men-as if the mere truth about mathematics, or chemistry, or theology, were a selfacting revolutionizer which, left to itself, would heal all the woes of the world. So, we find some of our most powerful thinkers living apart, touching the world only through those very distant mediathe transactions of the learned societies. If they even think of the work of practical reform at all, it is to smile with a wise compassion at the weak delusion which persuades itself that it can do anything but harm. They do not believe that they are the angels who can trouble the Bethesda Pool. They do not believe in the virtues of the pool, and they carry out their disbelief to the very illogical consequence of neglect of the sufferers. "I know that I am safe when I am among my bottles and balances, but if I give a penny to a beggar in the street, or try to interfere with the working of the poor law, I don't know what harm I may be doing," is the expression with which such an one excuses the passing by on the other side which marks the scientific quite as much as it did the other Levite.

Scientific truth is the only thing which does no harm, feeds no delusions, and makes no paupers, and in this is found the Nemesis of the scientific abstraction. But this abstraction of the faculties from the work which presents to the scientific habit just its very needful complement of opportunities for culture and for usefulness is the very thing which has so often made scientific men the specialists who devoted themselves to one object only, the slaves of any power that could make itself strong. Fortunately, our English scientific men have not suffered this divorce of the practical and of the speculative faculty to any very great extent. They have been politicians and philanthropists, as well as chemists and In Germany and in France, where devotion to astronomers. science and to the means of advancing scientific study has often obscured all the other interests of men, and has made philosophers the willing supporters of any Government, however tyrannical, which was willing to find the means for experiment and observation, the disastrous effects of this way of thinking have been most There are not wanting signs that in England, where scientific study has grown more absorbing in its interest of late years, the same separation of scientific men into a class, who are superior to the ordinary claims of citizenship and patriotism, and from whom it is too much to expect practical help in the contest with sin and misery, is being brought about. The eager students, almost the devoted servants, of jelly-fishes and apes console themselves, in the presence of suffering men, with a doctrine of averages, and of circumstances, and a necessity which has no theological mitigation like that which Dr. Priestley's ingenuity supplied. They have, indeed, become just as bigoted and one-sided as the Conservatives of Birmingham were in Priestley's time, and it is safe

to say that there are circles in London, and in some of our larger towns too, in which if an auto-da-fé were ever dreamed of at all, the victim selected with instinctive decision would be some man who meddles with people's emotion, and tries to persuade them that they have souls; for, by a strange turn of the wheel of thought, hatred and contempt are now on the side of knowledge, and the laboratory and the dissecting-room now use the old phrases of opprobrium with which the Church used to load all attempts at scientific investigation. So, though Professor Huxley does not do more than merely state Dr. Priestley's highest claim to respect as that of the man who could be scientific and yet human and humane, by the very statement he rebukes the tendency of our time which would give all respect to the specialist who keeps his own line and lends the world no other help than that which comes from the zealous prosecution of his particular branch of science or research.

We would take leave to extend the praise which Huxley bestows on Priestley, the scientific man—the lover of freedom and the enemy of ecclesiasticism—to Priestley, the Unitarian. Professor Huxley says, and saying it, proves by making no further allusion to the subject, that he does not share the thought, that "if Priestley himself had been asked what was his best claim to the recognition of posterity, he would have said that it was because he had been the champion and the defender, in season and out of season, of that particular hypothesis concerning the Divine essence which is called Unitarianism." "That particular hypothesis"—we easily detect the note of dissent and can fancy the quiet sneer with which the words were spoken, but, though we do not say that Priestley's championship of Unitarian thought has been the most fruitful of his works, we do assert that it was not the least worthy of honour. Hypothesis or not, it was truth to Priestley—the highest truth that he could reach—on the subject which had the greatest interest for him; and not having learned, like some of his more skilled successors in science, to shut his eyes to all that could not be distinctly seen, and to disregard the strongest motives and the most widely spread influences

of human thought and action—because they could not be treated by the methods of physical sciences, believing that since the thought of God does affect the lives of myriads of men, any hypothesis about his essence is a subject of serious concern, he held firmly to his views of truth in theology, pertinaciously defended the right of free inquiry, and gave to Will and Trust in a future life the same careful and conscientious thought that he bestowed on the detection of a gas. This is why we think that Priestley pre-eminently deserved houour; that he was not only a successful scientific man, but a man of large human sympathies, loving and pertinaciously defending freedom of thought, and that he refused to sacrifice his views of religious truth to any chances of social favour or increased opportunities of scientific research. That our opinion of Dr. Priestley's claim to honour is shared by others will appear, we think, if we divide the list of subscribers to the statue into two divisions—those who gave to the memory of the discoverer of oxygen, and those, far more in number, who respect in Dr. Priestley the consistent and not to be repressed defender of "that particular hypothesis concerning the Divine essence which is called Unitarianism."

"ATHENÆUM," August 1.

"An Appeal to the Public on the Subject of the Riots in Birmingham." By Joseph Priestley, LL.D., &c. (Birmingham, 1791.)

With Professor Huxley for priest or apologist, Birmingham is to-day to make some atonement for the wrong done eighty-three years ago to its greatest worthy. The most memorable and deplorable incident of the famous Birmingham Riots, on the 14th of July, 1791, was the attack on Dr. Priestley, and the burning of his house and property, on account of his sympathy with the

French Revolution. To-day all classes will unite in doing honour to him as a man who in politics only anticipated opinions that are now held openly by most people, and who, if his speculations and discoveries in science and philosophy were somewhat crude and incomplete, has rendered incalculable service to the progress of philosophic and scientific thought. Any one who has made much inquiry into the life and mental history of Priestley, must have been struck, not only by the amount of good work that he actually accomplished, but also by the skill and patience with which, like other successful workmen, he overcame, or laboured to overcome, the difficulties that were in his way. Those difficulties, indeed, arose as much from his own eagerness to do more work than it would seem possible for one man to do as from the ontward circumstances of his life. The latter, however, were sufficiently embarrassing. Brought up so devoutly, within the narrow range of Dissenting society in the first half of the eighteenth century. that at the age of four he could repeat the whole of the Shorter Catechism, and, when six and a half, used to take the lead in small family prayer-meetings, it must have been hard work for him to shake off the injurious effects of his early training; and we find that he could not quite do it even in the course of his lifetime of seventy years. Yet he began to try early, and the mere accumulation of other learning must have weakened the effect upon him of the Shorter Catechism. Before he was out of his teens he mastered Latin and acquired some familiarity with Greek and Hehrew, besides knowing a little Chaldce, Syriac, and Arabic, and a good deal of French, Italian, and German. Most of this study was preparatory to his becoming a Dissenting minister, for which vocation an aunt with whom he lived designed him; and with the same end he pursued his studies at Dr. Doddridge's Academy at Daventry, of which Dr. Ashworth was then tutor. theological school he learnt more than his aunt intended. At first a strict Calvinist, he began, along with some fellow-students. to have doubts about original sin and everlasting punishment, and on other points to be "a heretic;" "but," he adds, "the extreme of heresy among us was Arianism, and all of us, I believe, left

the Academy with a belief, more or less modified, of the doctrine of the Atonement."

These dawnings of free thought, however, did not lesson his desire to be a minister. In 1755, when he was twenty-two, he took charge of a congregation at Needham Market, in Suffolk, from which he expected about £40 a year. It did not yield as much as £30. "If it had not been," he says, "for . . . procuring me now and then an extraordinary £5 from different charities, I do not believe I could have subsisted." After three years he removed to Nantwich, in Cheshire, where, during another three years, he combined schoolmaster's with preacher's work, before becoming a more distinguished schoolmaster in Warrington. Between 1761 and 1767 he was tutor of languages and belleslettres at Warrington Academy, under Dr. Aikin. There, having previously written several theological works, he prepared some school-books. He even wrote poetry. "Mrs. Barbauld has told me," he says, in his charming Autobiography, "that it was the perusal of some verses of mine that first induced her to write anything in verse." There, too, he married, and he describes his wife as "a woman of an excellent understanding, much improvedby reading; of great fortitude and strength of mind, and of a temper in the highest degree affectionate and generous, feeling strongly for others, and little for herself." But Mrs. Priestley had to think about herself now and then, and yet more about her children; and the £100 a year that her husband's tutorship brought him was hardly more adequate to his wants, now that he had a family to support, than had been his £30 at Needham Market ten or twelve years before. It is true that he received some of the Academy pupils as hoarders at £15 a year each, but that did not yield him much profit. With some regrets he felt it necessary to exchange Warrington, with the society of the Aikins and other leading Unitarians, for Leeds, where he was minister of Mill Hill Chapel, still at a salary of only £100, but with some advantages that helped to increase his income.

At Leeds he began to attain eminence as a man of science, though for a long time previously he had been occupying himself.

profitably with scientific studies. At Nantwich he scraped up money enough to buy an air-pump and an electrical machine; and he made such good use of the latter, and of such books as he could borrow, Benjamin Franklin being his great helper in this matter, that in 1767 he produced his "History and Present State of Electricity, with Original Experiments," which won him much fame, and which was followed shortly afterwards by the "History and Present State of Discoveries relating to Vision, Light, and Colours." At Leeds he lived near a brewery, and that circumstance is supposed to have induced him to turn his attention to pneumatic chemistry, for the study of which it afforded certain facilities. At any rate, he there began the series of chemical discoveries on which his scientific fame chiefly rests. In 1772 he published a pamphlet on "Impregnating Water with Fixed Air," and also communicated to the Royal Society "Observations on Different Kinds of Air," which led to his obtaining the Society's Copley medal. In 1774 he discovered "dephlogisticated air," or oxygen; and that was quickly followed by the discovery of other chemical elements and elemental compounds, of which the chief were nitrous gas, nitrous oxide gas, nitrous vapour, carbonic oxide gas, sulphurous oxide gas, fluoric acid gas, muriatic gas, and ammoniacal gas, as well as the pneumatic apparatus that is now in common use. By these exploits he may be said to have almost invented chemistry as a precise science. But he took a moderate estimate of his attainments therein. "Though I have made many discoveries in some branches of chemistry," he wrote, in 1795, "I never gave much attention to the common routine of it, and know but little of the common processes."

While Priestley was at Leeds a curious incident occurred. It was proposed that Captain Cook's second voyage to the Southern Seas should be accompanied by a well-organized scientific expedition, under the direction of Sir Joseph Banks. Banks asked Priestley to join it as astronomer, and he acceded. Some weeks afterwards, however, Banks had to inform his friend that the appointment must be cancelled, as the Board of Longitude objected to his theology. It is not strange that on this occasion Priestley

should have shown more indignation than was customary to his gentle nature. "What I am, and what they are, in respect of religion," he wrote to Banks, in December, 1771, "might easily have been known before the thing was proposed to me at all. Besides, I thought that this had been a business of philosophy, and not of divinity. If, however, this be the case, I shall hold the Board of Longitude in extreme contempt." So did other people.

In 1773, Priestley left Leeds to be librarian and literary companion to the Earl of Shelburne, afterwards Marquis of Lansdowne. Financial reasons appear to have chiefly prompted this change, as by it he obtained a salary of £250 a year, to be followed by a pension of £150, instead of his meagre income of £100, terminable at the will of his congregation. It was useful, however, in other ways. He had access to good books and to congenial society, both in England and abroad. He travelled through France, Belgium, Holland, and Germany, and made many The Paris chemists and mathematicians told him new friends he was the only respectable philosopher or man of science known to them who believed in Christianity. But Priestley, though a good Christian to the last, was becoming so liberal in his views, that people began to call him an atheist. Some of his boldest views found expression in "Disquisitions relating to Matter and Spirit," published in 1777, a book which attempted to show that "man is wholly material, and our only prospect of immortality is from the Christian doctrine of the Resurrection." In 1782 appeared a more important work, "The History of the Corruptions of Christianity," which some pious folk in Germany burnt publicly.

Either on account of his heresies, or for some other reason, Priestley parted from Lord Shelburne in 1780. Then began his residence in Birmingham, forming the most memorable decade in his career. "I consider my settlement at Birmingham," he wrote, "as the happiest event in my life, being highly favourable to every object I had in view, philosophical or theological. In the former respect, I had the convenience of good workmen of every kind, and the society of persons eminent for their knowledge of

chemistry, especially Mr. Watt, Mr. Keir, and Dr. Withering. These, with Mr. Boulton and Dr. Darwin, Mr. Galton, and afterwards Mr. Johnson of Kenilworth, and myself, dined together every month, calling ourselves the Lunar Society, because the time of our meeting was near the full moon, in order to have the benefit of its light in returning home." The Lunar Society is famous in the history of modern thought, though, in spite of all that has been written upon it by Mrs. Schimmelpenninck and others, a great deal yet remains to be said about the services rendered by it to free inquiry and scientific research, Priestley, Watt, and Darwin being its magnates, with such shrewd men of business, men who combined art and science with their trade, as Boulton and Wedgwood, for their associates. Through those few years, beginning before Priestley's arrival, and not quite ending with his departure, Birmingham was almost the intellectual centre of England; and in nearly every branch of science and politics, as well as of art and manufacture, we are now reaping the benefits of the diligent researches and wise discussions that occurred in and out of the meeting place of the Lunar Society. It was the general character of this society and its members, doubtless, even more than their sympathy with the French Revolution, though that was the avowed cause of the exploit, that induced the High Churchmen and other great people of the town to incite the mob to the disgraceful riots that took place on the anniversary of the capture of the Bastille, in 1791, and of which Priestley was, in some respects, the chief victim.

It can hardly be said that Priestley's life was shortened by that catastrophe; but what remained of it was saddened. The pamphlet whose title we have quoted at the head of this article shows eloquently and pungently how much he was injured by the treatment to which he was subjected. Substantial expressions of sympathy came in from all his friends; but pecuniarily, as well as in other ways, he was still a great sufferer. He went to Hackney as successor to Dr. Price, in the presidency of the Dissenting College there established; but the annoyances that he continued to receive from political and religious enemies soon induced him

to seek rest in America. He went out "a broken philosopher," as he called himself, to Northumberland, Pennsylvania, in 1794. There he wrote several more books, and there he died in 1804, at the age of seventy.

We have occupied more space than we intended with a brief recapitulation of the main incidents in Priestley's life. For that, however, we may, perhaps, be excused, as it is to be feared that many well-informed persons share the ignorance of one of our leading publishers, who lately met an author's proposal that he should issue a new biography of the more than half-forgotten worthy by the startling question, "Who was Priestley?" Professor Huxley will answer that question at Birmingham to-day in vastly better terms than we could command, and Professor Huxley's panegyric will doubtless come as a revelation to many newspaper readers on Monday. The notable scientific man of the present day can hardly speak in too high praise of the notable scientific man of two generations ago. On Priestley's own admission, his researches, even in the science that he knew most about, were superficial, and his discoveries to a great extent accidental. Had he limited his field of study to a tenth of its actual dimensions, and devoted all his energies to the exploration of that smaller area, his work would, probably, have still seemed faulty in many ways to the exact critics of our own age. Distributing his powers so widely as he did, the faults were necessarily very numerous. But this should detract nothing from the honour paid to him. Perhaps it is hardly to be regretted. We could spare some of his school-books and some of his contributions to theological controversy. But probably the world is all the better for his dabbling, not only in electricity, optics, astronomy, and other branches of science, as well as in chemistry, but also in metaphysics, ethics, and politics, as well as in the physical sciences. Roger Bacon, Francis Bacon, and a host of other bold thinkers did the same, and Priestley may be named in the same breath with both the Bacons. Like them, for his own period, which is ours, he was a pioneer in a new quest after truth. The world of thought-theological, political, philosophical, and scientific—was torpid when he began thinking for himself. It must have been a strange thing to his neighbours, the kind friends who taught him the Shorter Catechism and so forth, that he should begin thinking for himself. It need not be strange to us that he sometimes thought amiss. The marvel is that he thought so well. Of course, in much he was the only creature of his time. He could not break all the bonds that surrounded him as well as others. Great outside forces were at work which influenced him as well as others. But the bonds were to a notable extent broken, and the influences were wonderfully productive. He became a leader of independent thought in nearly all the channels of human progress, and we cannot be too grateful to him for the good work which he did, and for which but scant gratitude was accorded to him in his lifetime.

"SATURDAY REVIEW," August 8.

The people of Birmingham and Bradford have been erecting statues to two distinguished men belonging to very different orders of eminence. Professor Huxley appears to have spoken with his usual force in setting forth the claims of Priestley to the admiration of the present generation. In his life Priestley was immersed in controversies which are by no means extinct in our day, and stirred animosities which may still have left their mark upon his reputation. By one class of readers he will be remembered chiefly as the antagonist of Bishop Horsley, by another as the man who sympathized with the French Revolution after the zeal of most of its English admirers had grown cold; whilst a third class chiefly value his scientific reputation, and think it a pity that he ever applied his great abilities to tasks for which he was less palpably suited. Professor Huxley, as in duty bound, protested against this last opinion. He profeseed his sympathy with a philosopher who could admit that his duties as a

citizen and an advocate of freedom of inquiry in all subjects were of more importance even than his duties in promoting science. Professor Huxley has a right to take this view; for, as we all know, he has himself taken part in active life, and by becoming a member of the London School Board illustrated the principle that a man of science should not be above participation in other duties. The question is one of those to which it is impossible to give a categorical answer. Speaking generally, we should be much disposed to hold by the good old rule that every man should take one line and stick to it; and that the best prescription for failing in life is to try to do two or three things at once. Nor would it be difficult to illustrate this rule from the case of Priestley himself. Without discussing the wisdom of his political or theological opinions, it must at least be admitted that his performances show all the characteristic defects of the men who have a weakness for omniscience. Few people have ever exerted themselves at once in so many departments; and the results are generally what might have been expected. His versatility and energy were something truly amazing, and yet it cannot be said that he succeeded in really leaving the impress of his mind upon any study except chemistry. The long list of his writings includes an extraordinary variety of subjects; it includes speculations upon problems which no one can attack successfully without prolonged and concentrated attention, and historical inquiries upon which nobody can speak satisfactorily without the labours of a lifetime. He is, therefore, at once superficial and wanting in originality. He has hastily glanced at a great variety of topics without getting to the bottom of any. He learnt what he knew of metaphysics from Hartley, and certainly did not improve upon the teaching of his master. As a theologian he followed the general tendency of the Liberal Dissenters, of whom Lardner was the ablest representative in the previous generation; but his peculiar compromise between rationalism and orthodoxy would satisfy no one at the present day. He was a Christian and a materialist, and, whilst leading the revolt against authority, interpreted the Scriptures in the spirit of Dr. Cumming, and found distinct prophecies of Nelson and Napoleon in the Apocalypse. He attacked Horsley on one side and Gibbon on the other; and, whatever we may think of the merits of the general argument, we must admit that in both cases he presents the ordinary spectacle of a clever hand-to-mouth writer who crams himself with special information in order to assail men of profound learning and trained scholarship. The Times reminds us that Bentham professed to have learnt his formula about the greatest happiness of the greatest number from Priestley's treatise "On Government." The sacred phrase, however, does not, we believe, occur in Priestley's writings. and had already been given in one of Hutcheson's minor treatises. Here, too, his opinions are really an incongruous mixture. believes at once in the à priori theories of the rights of man and in Utilitarianism, without detecting the radical divergence of theory which divides Bentham from the school of Rousseau. Priestley, with all his intellectual activity—and few men have ever produced so great a quantity of work under so great disadvantages -can hardly be taken to have established a precedent in favour of a wide dispersion of energy. If his mind had been concentrated entirely upon science, the results obtained might have been less in amount, but they would have been far more durable.

There will, of course, be a variety of opinion as to the loss which we should have suffered by Priestley's abstinence from other fields of labour. People who disapprove of his religious and philosophical opinions may regard the supposed loss as really a gain. But even those who sympathize with his general tendencies must admit that the loss would not have been unqualified. Granting that a man of science should not lock himself up in his laboratory, or be indifferent to the great social and intellectual movements of his time, we may still be of opinion that he had better not snatch a few odd moments from his main occupations to throw off impromptu ecclesiastical histories. Professor Huxley, as we all know, has some very decided opinions upon topics which lie outside his more special sphere of labour; but we do not think that he would increase his influence even upon those points if he compiled voluminous treatises on the Early Church from

information acquired at odd balf-hours. A man, it is true, should be a citizen as well as a professor; he may take part in political discussions, for we have all agreed that such discussions require no training of any sort; he must hold opinions upon religious and moral questions, and may at times tell us what they are. Every man is forced to think upon such matters, and moreover it is daily becoming more evident that the most special studies have frequently a bearing upon the widest philosophical questions. Nobody, in short, should be so mere a specialist as to bury himself in his own little corner of knowledge; he should rather be guided in his study of minute details by reference to some general scheme of inquiry. But it is equally true that even a leader of thought should, as a rule, be content with preeminence in one particular branch of study. Elsewhere he need not be silent, but he must not speak as one having authority. He must come down from the chair and be content to occupy a subordinate position. This was the simple rule which Priestley neglected, to the great injury of his reputation. Nobody could find fault with him for advocating what he took to be the cause of liberty in theological or political speculation; but he put himself in a false position when he fancied that his reputation as a scientific inquirer entitled him to assume an authoritative position upon subjects which he had only half studied. If Horsley or Gibbon had attacked his scientific discoveries from a mere secondhand knowledge, he would not have been slow to warn them peremptorily off a province which did not belong to them. did not perceive that he was committing an equal solecism when attacking them upon their own ground.

Professor Huxley was not called upon to draw this moral when unveiling a statue. He was bound to be complimentary, and he was in no want of topics for reasonable praise. Whatever may have been Priestley's errors it is impossible to refuse to him the admiration due to a man of extraordinary energy, honesty, and independence of spirit. An excess of intellectual activity is a fault against which few people require a warning, and by this time men of all parties may admire Priestley's many most admir-

able qualities. His adherence to his principles was tainted by no selfishness or servility. He manfully avowed unpopular beliefs at a moment of panic; he had a generous love of liberty in all its manifestations, and his intellectual labours were all directed with a lofty aim, and pursued in spite of most unpropitious circumstances. If the variety of his pursuits made his work less fruitful than it might have been, his life was throughout noble, and his devotion to intellectual pursuits was especially honourable at a time when English speculation had sunk to its very lowest ebb. Nor should we judge too harshly of him for yielding to distractions from without in a period when the revolutionary excitement was sweeping away every man who took an interest in the future of his race. It required a specially cold temperament to be a mere man of science in those days, and Priestley's errors were at any rate produced by the warmth of his sympathies, and not by any sordid motives. We may fully approve of his receiving the posthumous honour of a statue in the town from which he was exiled, though we are also glad the sculptor has represented him: in the character which gives him his most unquestionable title to fame.

"Examiner," August 8.

The unveiling of a memorial statue of Dr. Pricstley in the town of Birmingham, from which, eighty-three years ago, he had to flee for his life, is a striking reminder of the progress that has been made during those years in civil and religious freedom. The erection of this statue has more meaning than ordinary tributes to departed eminence; it is more than an act of homage to the memory of a great man. It is a monument of triumph over ecclesiastical tyranny in the past, and a claim for uncontrolled expression of opinion in the future. The Priestley memorial has been described as a tardy reparation on the part of Birmingham.

But it amounts rather to this, that Dr. Priestley's admirers and sympathizers have succeeded in making the town of Birmingham eat humble pie. And upon a broader view of the matter, one may say that dogmatic orthodoxy in general has been obliged to eat silently of that unsavoury dish. For if an attempt had been made eighty years ago to set up a statue to the discoverer of oxygen, not only would the populace of Birmingham at once have turned it into convenient fragments for the relic hunter, but all the churches of the country would have been filled with denunciation and lamentation over the spread of infidelity. Even if Professor Huxley had not made the fact explicit, it was not difficult to see that there was more in the gathering of scientific men at Birmingham, on the 1st of August, than the celebration of the centenary of oxygen. The learned doctor is sculptured as gracefully extracting oxygen from red precipitate of mercury, and not as throwing firebrands and arrows among the bishops. But if he had not devoted a large portion of his energies to the latter employment, it way reasonably be doubted whether his statue would have been set up at this particular time. It is asked why so? If the statue commemorates Priestley's religious battles, why was it not inaugurated by the Unitarians, whose cause he sustained so manfully? Doubtless, if the ceremony had been merely retrospective and self-congratulatory, if the offering had been simply votive, the Unitarians were the proper persons to undertake it. But it is virtually an act of protest, of challenge, of defiance; and being so, the initiative is properly taken by the men of science, who have succeeded in this generation to that position of hostility to the Church which was occupied in Priestley's time by the Unitarians. Science in Priestley's time was inoffensive and unsuspected. But now it has encroached on the province of theology, and finds it necessary to vindicate its claim to freedom of speech. It is nominally as the discoverer of oxygen, but virtually as the champion of free thought and free speech, that Joseph Priestley has had a statue erected to him in Birmingham.

Professor Huxley—who, we trust, will not, as is rumoured, be also under the necessity of emigrating to America—expressed an

opinion that the main cause of the odium against Priestley was his so-called materialism. We do not quite agree with this. The opprobrium of that name belongs more to our time than to Priestley's. No doubt his generation was as far as ours is from seeing that the evidence for the mysteries of the world is the same under all theories of soul and body: that the question whether the human being is made of one substance or of two has not the remotest connection with the question of our immortality, or of the objective existence of a personal God. But it may be doubted whether Priestley's materialism was the chief cause of his unpopularity. When we look closely into the facts, we see grounds for dislike of a less abstract and still less reasonable kind. minds of the Birmingham populace were poisoned against him by the clergy; and the first publication of his that aroused the wrath of the clergy to the pitch of general denunciation from the pulpit was a sermon on the proper conduct of Dissenters in regard to the Test and Corporation Acts. Before this, Priestley had fought more than one pitched battle in print with defenders of the faith. His materialism, indeed, had not been the occasion of the chief of them. Seeing that he strenuously upheld the immortality of the soul, this would not alone have very much affected his reputation with the orthodox. A much more serious rock of offence was his denial of the divinity of Christ. There is nothing in the doctrine of one human substance which might not be held by the Archbishop of Canterbury. But the doctrine of one Divine Person is a damnable heresy. Priestley's controversy with Dr. Price touching the materiality of the human spirit was conducted with moderation and courtesy on both sides. But his controversy with Horsley, on the historical question of the Unitarianism of the early Christian Church, was quite another affair. Their most bitter passage-at-arms, and one in which there was a most ludicrous misunderstanding, and some dishonesty on both sides, arose upon the question whether the Hebrew Christians did or did not abandon the Mosaic law in order that they might be eligible to the privileges of the Ælian colony. The fierceness of the conflict is seldom an index to the importance of the stake.

But it was not, as we have said, these abstract and historical controversies that brought Priestley into popular odium. The populace are not excited by such controversies. The cry that cost Priestley house and home, and drove him into exile, was easier of comprehension: it was the simple cry of "Church and Crown in Danger." Priestley's chief enemy in Birmingham was a clergyman of the name of Madan, and this was the cry with which he hounded on the people. When Priestley raised his voice against the tyranny of excluding Dissenters from civil employment, Madan denounced him as the subverter of the Church. In the same sermon in which Priestley pleaded for civil equality, he exhorted his hearers to pray for the success of a neighbouring nation, and all who were then struggling for liberty, civil or religious, throughout the world. This gave an opportunity for charging him with a design to subvert the Throne. For two years the minds of the people were sedulously inflamed against the heretic. A story was invented of a hearer of Priestley's, who confessed on his death-bed that his pastor had tried to seduce him into atheism. On one occasion Priestley, varying the metaphor of sowing the seed, had represented himself as laying trains of gunpowder, which would one day explode and blow the whole structures of tyranny and superstition to pieces; and this metaphor was not only circulated as a literal verity among the ignorant, but was actually read in the House of Commons as an instance of the dangerous designs of Dissenters. It was this fanatic and fraudulent misrepresentation that excited the hatred of the people against Priestley. With Priestley, as with most objects of popular hatred, it was not so much his own opinions that brought him into odium, as the opinions and designs falsely imputed to him by malicious spleen and credulous fanaticism.

"TIMES," August 4.

On Saturday last Birmingham and Bradford witnessed the unveiling of two statues in honour of men of whom both towns have just title to be proud. At Birmingham atonement was made to the memory of Joseph Priestley, who, eighty-three years ago, was driven with ignominy from the place where now a statue will stand to record his struggles, his trials, and his success. In much of the striking encomium pronounced upon this distinguished man by Professor Huxley all parties would now concur. That he discovered oxygen gas, and added many other steps to the ladder of physical science, is common ground upon which men of all shades of opinion may meet and praise him, but, besides this, he was a man of the same stamp as Bunyan, or as Cromwell before the days of his Protectorate, if, indeed, the great Protector ever ceased to he true to his better nature. At the time when Priestley's energies were being exerted in the cause of political freedom, the example of the French Revolution had strengthened the hands of a Government already too powerful for the Constitution of England or the temper of Englishmen. In these days, when there is hardly a sheet of paper between the views of the moderate men of different parties, it is less easy to understand how much courage was then required for any one to stand forward as a champion of reform. The power of the Government was equalled only by its injudicious zeal, and both were often seconded by the fanaticism of an ignorant mob. If any individual transgressed the narrow limits which were alone allowed, or strove to attain real independence, he was as sure to be discountenanced by the public as to be repressed by the Government. Yet in the midst of these discouragements Priestley never flinched from asserting civil and religious liberty. We cannot agree with Professor Huxley in the suggestion that he was merely a champion of restrictions on ecclesiastical encroachments, but we agree in thinking that he deserves high honour for the sacrifices he made to his religious ideal, wrong as we must hold

him in his particular doctrines. It is to courage and energy such as Priestley displayed that the liberty which this country enjoys is principally due.

The philosopher whom Birmingham now delights to honour was one of those men who, having shaped their own fortunes in spite of difficulty, and formed strong opinions in spite of doubts, remain to the end both kindly and tolerant. He was born in 1733, and at one time destined for a counting-house; but having a decided preference for the Ministry, he educated himself for that calling. In the very straitened circumstances in which he was placed in the earlier part of his life, he actively exerted himself to maintain his family, and was at one time a schoolmaster and at another the friend and literary companion of Lord Shelburne. His scientific experiments were conducted under great disadvantages from want of means, but he succeeded in spite of his poverty by the sheer force of genius and resolution. When the French Revolution broke out, in 1789, he manfully defended the enterprise of the reformers, whose exertions were as yet untainted by crime; and in consequence of his attitude on this subject he saw his house in Birmingham sacked and destroyed by rioters, from whose violence he had to escape by flight. Finally, he retired to America in despair of seeing political freedom in England. His literary merits are testified by many publications on manifold subjects, little read now, but highly considered in his own time. Jeremy Bentham said that he was indebted to one of Dr. Priestley's pamphlets for the phrase "the greatest happiness of the greatest number," which has since figured so conspicuously in the pages of political philosophers. Though opposed, and, as he sometimes thought, persecuted by the Established Church, Priestley maintained not unfriendly controversies with its dignitaries in a spirit which drew from them acknowledgments of his liberality and love of truth. His special theological doctrines have hardly advanced in popularity since his death, but the spirit which he exemplified in his life has gained a wider prevalence since his death, and is justly encouraged in the statue which had been erected to his memory.

At Bradford the ceremony of Saturday was devoted to com-

memorating in a similar way the title of a living benefactor to local gratitude. Sir Titus Salt has enjoyed a career of usefulness of a wholly different kind from that of Dr. Priestley, as present times and present requirements are wholly different from those of eighty years ago. There are now no tyrannical and bigoted laws to war against, and no furious riots to imperil the lives of political adversaries. We have passed that stage of our history, and have entered upon a period of greater quiet, but still of great responsibility. The immense growth of opulence has not equally benefited all her Majesty's subjects, though, happily, the munificence and public spirit of many persons have already effected much improvement among those who most require it. No nobler example can be found of the earnestness with which this duty is recognized than in the town of Saltaire. The Duke of Devonshire, who unveiled the statue of Sir Titus Salt, spoke with the pride of a neighbour of the great work that has there been done. The inhabitants of that town enjoy gardens and allotments of land, baths and wash-houses, and a spacious park for their recreation. There are almshouses for the aged, and an infirmary for the sick, as well as an elementary school, a club, and an institute. Above all, the buildings are open and healthy, so that nothing has been forgotten which could contribute either to the material or to the mental well-being of the people. The effect of such an example cannot be lost upon the rest of England. Nothing is more important for the moral welfare of the population than they should have suitable dwellings, and at the same time hardly anything is more difficult than to procure them. The growth of villages into towns and of towns into cities which has marked this century has led to the relegation of the poorer classes into crowded alleys, to the serious injury both of their health and of their morals. Parliament has been able to deal with the educational question in a manner which guarantees a much higher standard of knowledge in the next generation than in the present; but measures of material improvement must always depend in a large degree upon the benevolence and enterprise of individuals. It was from an appreciation of benevolence and enterprise exerted in no limited degree that

the desire arose of erecting a statue to Sir Titus Salt. His labours at Bradford and Saltaire have earned him the thanks not only of those who have profited by his energy, but also of those who hope that many others will profit by his example. It was not unnatural on the part of those who subscribed for the purpose to wish to see the statue erected during the lifetime of the man whom it was to commemorate. We need not always defer the expression of our gratitude till the object of it is no longer among us. Nor is posthumous praise always the most sincere. If Dr. Priestley deserved to be remembered in Birmingham for his courage and his discoveries, Sir Titus Salt also deserves to be thanked in Bradford while still living for his benevolence.

"DAILY NEWS," August 3.

Professor Huxley struck the right chord when, in his speech at Birmingham on Saturday, he touched with emphasis upon the fact that Priestley put his duties as a man and a citizen above or at least before his duties as a philosopher. The statue which he unveiled was not raised merely in honour of the discoverer of oxygen. The "centennial anniversary" of the day when the discovery was made was the most convenient occasion on which to appoint a celebration of Priestley's career. But the peculiarity of that career, for which probably Birmingham would most delignt to honour it, was that it devoted itself above all things to human and living interests. Nothing is, or at least was then, more rare in the scientific, or in what is somewhat too narrowly described as the philosophic mind, than any inclination or aptitude for political affairs. In Priestley's time it was with the majority of persons an article of faith either that a scientific man was concerned in interests far too grand and lofty to allow of his troubling himself with the vulgari-

ties of politics, or else that his meddling in them was an intrusion as impertinent as that of a clergyman or a woman would then have been considered. What William III. thought of a civilian on a battle-field, what Mr. Disraeli thinks of a philosopher in Parliament, what Lord Sandon thinks of a political Nonconformist, that most persons then thought of a scientific man who took part in public affairs. If he concerned himself in such things at all, his duty was held to be something like that which usage has assigned to the Lords Spiritual of our day—the duty of lending a general support to every Government and the established order of things. fore it happened very naturally that when a philosopher, either in the physical or mental science, said anything about politics, his political views were, usually, as childish as those of Berkeley. This was not so in a former day, and the names of such men as Arago, and, it may be added, as Professor Huxley himself, show that in a later time strong and clear political opinions are not supposed to be inconsistent with the proper direction of the scientific intellect. But, in Priestley's time the philosopher who, in England at least, attempted to be an active politician as well, did so at the peril of his reputation. It is, if not the greatest honour, certainly the most remarkable peculiarity of Priestley's career, that he gave up to the cause of political and religious freedom so much of the energy and intellect of a life which could have found abundant satisfaction for all its intellectual aspirations in the pursuit of those scientific discoveries which have won for him a distinctive fame.

Birmingham owes Dr. Priestley a reparation as well as a monument. His statue near the Town Hall reminds the world not merely that Priestley lived and worked long in that neighbourhood, but also that the place was the scene of the most unprovoked and wanton deed of injustice and Vandalism done in that century, if we except, perhaps, the destruction of Lord Mansfield's library in Bloomsbury Square a few years before. The roads around Priestley's house were strewn with tattered books and torn manuscripts, as the monument of the loyal zeal of the mob who thus punished him for his supposed presence at a dinner to celebrate the anniversary of the destruction of the Bastille. Priestley was

not at the dinner; but the author of the "Familiar Letters to the Inhabitants of Birmingham," and of the reply to Burke's Essay on the French Revolution, was fair game for any attack which the vehemence of senseless partisans might suggest. In our time it seems almost incredible, but it is nevertheless the fact, that there were English journals of high position found to speak complacently and almost approvingly of the barbarous demonstration of loyal zeal in which Priestley's books and manuscripts were destroyed. Unfortunately for himself, he was one of the men whom the French Republic, in the early glow of its enthusiasm for universal brotherhood, had singled out, as it did Schiller, for the honour of a conferred citizenship. This fact told severely against Priestley, not merely in England but even in America, whither he emigrated, and where a sort of reaction against any sympathy with France had by that time set in among the more constitutional and less democratic of the politicians and the people. In England it operated against him, as has been well said, like "a sort of proscription," and it virtually compelled him to withdraw from his position as a member of the Royal Society. Professor Huxley has very properly remarked upon the moderation and good sense which are found in Priestley's views regarding, for example, the Established Church. Probably it is true that if he were alive to present himself now as a political candidate in Birmingham, he would be regarded as a Conservative thinker by the advanced Liberals there. It was only indeed, in the tempest and fury of reaction which set in when the French Republic began to show itself politically and socially aggressive, that views such as those which Priestley advocated could ever have been condemned as anarchical or even dangerous. Priestley was the victim of an hour of panic-stricken Conservatism. His books were destroyed because he had maintained, with regard to the French Revolution, opinions remarkably like those which Burke and even Chatham had expressed with regard to the rights of the American colonists at the time of the Stamp Act and the Tea Duties. But there is none the less something peculiarly appropriate in the fact that Birmingham, which was the scene of the outrage upon Priestley, should be the place which celebrates his

memory by the erection of a statue. It is in a degree like the prayer of Florence for the remains of Dante.

Two years or thereabouts after Priestley's death, the great literary organ of the Liberalism of that time employed one of its choicest pens to illustrate the character of Priestley while criticizing his lately-published memoirs. There is something curious and even grotesque about the self-satisfied and complacent tone of patronage and contempt with which the Edinburgh Review of 1806 disposes of the claims of Priestley on posterity. Admitting his general goodness of character, and even the value of some of his scientific discoveries (although it observes that there is about as much philosophy in the greater part of his experiments as in "sweeping the sky for comets"), it professes to be much amused with Priestley's evident belief that his name was destined to go down to posterity. Any one who reads his books, or even looks over his memoirs, must see, the Reviewer thinks, that Priestley really expected a place to he assigned to him "in the Temple of Immortality;" and thereupon the writer proceeds to descant on the absurd arrogance of provincial talents, and the advantage of that "wholesome discipline of derision" which in London would so quickly repress "the fungous excrescences of presumption and extravagant vanity." Southey and Coleridge are pointed out with Priestley as examples of this ludicrous provincialism and selfconceit. A century after Priestley's discovery of what he called "dephlogisticated air"—nearly seventy years after the grave Reviewer had rebuked his presumption—his statue is unveiled, and one of the greatest scientific teachers of our time pronounces the discourse which celebrates his elevation to what the Reviewer grandiloquently styled the Temple of Immortality. It is not rash to assume that a statue placed in that temple seventy years after the death of him whom it represents is likely to be allowed to remain there by succeeding generations. There was, indeed, something so extraordinary about the manner in which Priestley arrived at his scientific conclusions sometimes, that we cannot be surprised if contemporaries were honestly perplexed. Some of them must have looked at his methods as Molière's physicians regarded a new

and simple mode of treatment, or as steady old Austrian generals stared at Napoleon's way of making war. As Professor Huxley says, Priestley scaled the walls of science without preparation and from the outside. "I never," Priestley himself wrote, "gave much attention to the common routine of it (chemistry), and know but little of the "common processes." He seems sometimes to have arrived at scientific conclusions by the mere divining power of genius, as Pascal did. Perbaps Pascal is one of the few men who could be distinctly declared the superior of Priestley in the same field of intellectual activity. In the instance of both men the scientific work was but part of a career. Pascal gave to doctrinal religion that share of his life which Priestley divided between politics and philosophy. It is the politician surely that Birmingham honours as well as the scientific discoverer. The friend of Franklin, the not unworthy antagonist of Burke, the champion of equal rights for all seets of citizens, the victim of inflamed bigotry, the proscribed of political reaction, is no less than the philosopher remembered in the celebration of Saturday.

"DAILY TELEGRAPH," August 3.

Upon Saturday last Birmingham performed a great act of retributive justice. Under the inspiration of Professor Huxley, and in presence of a vast multitude of witnesses, was unveiled a marble statue of Dr. Joseph Priestley. The great town in which the ceremony of last Saturday took place owes it to herself, no less than to mankind, that in her centre a public monument should speak of him who but anticipated the opinions which, above other cities, Birmingham now delights to honour. Born in the West Riding of Yorkshire, upon March 14, 1733—the son of a humble cloth manufacturer, who was himself the narrowest of Calvanistic Dissenters—Joseph Priestley had nothing but his own indomitable thirst for knowledge and passion for freedom of inquiry to thank

for the notable circumstance that, upon the centennial anniversary of his greatest chemical discovery, the whole civilized world should be invited, by one of England's most eminent men of science, to contemplate the lessons of his instructive life. Without the advantage of superior education, "afar," as Dr. Johnson says, "from the shade of academic bowers," with an income which, during the larger portion of his life of seventy-one years, did not exceed £150 per annum, at once a Dissenting minister, a philosopher, and a politician, Joseph Priestley so employed his time and faculties that the humblest among the spectators who watched the proceedings of last Saturday may derive suggestions of hope and patience from his pregnant example. "The meaning of an extraordinary man," said Sydney Smith, "is that he is eight men, not one man;" and, when the labours of Joseph Priestley are analyzed, who can contemplate them without astonishment? "Few men," as Professor Huxley remarked, "ever had so many irons in the fire; and although he did, per-"ever had so many irons in the fire; and although he did, perhaps, burn his fingers now and then, few men who had so many irons in the fire at the same time ever burnt them less." He irons in the fire at the same time ever burnt them less." He was at once a great polemic, an indefatigable man of science, and a vigorous politician. The volumes that he produced were seventy in number; his discoveries did more to make chemistry an exact science than those of all his predecessors combined. During a large portion of his early life he was a schoolmaster and a Nonconformist preacher, and in more advanced life, revolting against the narrow dogmatic theology which drove John Wesley beyond the Church of England's pale, he ventured upon those hazardous disquisitions relating to "matter and spirit" which erroneously procured for him, in an unthinking age, the reputation of being a Materialist, if not an Atheist. In modern times, as Professor Huxley admirably pointed out many dignitaries of the Church Huxley admirably pointed out, many dignitaries of the Church of England have expressed opinions identical in substance and enunciatory of the same theses as Priestley selected. But it is one of the worst evils resulting from Governmental interference with freedom of thought that independent minds, irritated by artificial fetters, strike blows intended rather to wound than to

convince. During the latter half of the nineteenth century, Priestley would not have had to fight for "that freedom which is the essential condition of the progress of science, and the progress of the human race." It would have been easy for him, leaving "fate, free will, foreknowledge absolute" to others, to confine himself to the pursuit for which nature admirably qualified him—scientific experiment. But the narrow eighteenth century denied him that fair liberty without which he could not work in any field. In order to strike off the shackles which encumbered the human mind upon all sides, he shouldered his axe and dealt blows at every tree, however venerable and time-honoured, which hampered his freedom of action.

We can all now understand that in the seventy volumes from Priestley's pen it were better that much had never been printed. The tendency of such controversial writings as possessed a charm for many of the ablest minds that the eighteenth century produced is, as the First Napoleon said of the writings of Madame duced is, as the first Napoleon said of the writings of Madame de Sévigné, that, "like snow, they fill without satisfying the stomach." Hume, Adam Smith, Gibbon, Condorcet, Diderot, Voltaire, Franklin, Jefferson, Paine, Priestley, and many more did, as Dr. Johnson said of their works, "everything to unsettle, and nothing to settle, men's opinions." Priestley's polemical works have perished because the crisis that gave birth to them has long passed away. His "Jesus and Socrates Compared," and his "Disquisitions relating to Matter and Spirit," would find no readers in an age familiar with Theodore Parker's writings, with "Ecce Homo," and with "Supernatural Religion." And yet it is to Priestley's polemical publications that he probably owes the apotheosis conferred upon him as a chemist last Saturday. By his vigorous onslaughts upon dogmatic theology, he led his fellew-citizens at Birmingham to believe him an Atheist, a Republican, an anarchist. Himself the gentlest and least aggressive of men if left alone, he turned round and hit out hard when interfered with. He sympathized with the American Rebellion and the French Revolution, and when the latter great uprising of human freedom against Monarchical vice and tyranny

went too far, Priestley was perhaps the greatest sufferer in England from its excesses. The most memorable event in his life is that which led Birmingham to put up what may be called the penitential monument to his memory which Professor Huxley unveiled upon Saturday last. Forty years of his life were spent, as it were, from hand to mouth. As preacher, schoolmaster, as it were, from hand to mouth. As preacher, schoolmaster, pamphleteer, he supplied, as best he might, the slender wants of his wife, children, and self. But, in 1773, the Earl of Shelburne—who subsequently became one of Mr. Disraeli's "five Buckinghamshire Premiers"—invited Priestley to reside with him at Bowood, as librarian and literary companion, at a salary of £250 a year, to be followed by a pension of £150 a year if their connection were suspended. The first result of the immunity from working for daily bread that Lord Shelburne's salary secured to Priestley was that, in 1774, he made the discovery which has immortalized him, to wit, the existence of "dephlogisticated air" or oxygen gas. The books and scientific instruments that his residence at Bowood brought within reach were not long in or oxygen gas. The books and scientific instruments that his residence at Bowood brought within reach were not long in hearing fruit. Nor, when paying this tribute to Priestley's memory, ought we to omit a word of homage to his patron and henefactor. Lord Bute, the first Premier of George III., the unpopular "Jack Boot" of our forefathers, has little claim to recollection other than that, in language of which the generosity will always be grateful to men of letters, he gave a literary pension of £300 a year to Dr. Johnson. In like manner the most noticeable event in Lord Shelburne's life history is not that he was once Prime Minister, but that, with a sympathy for talent which has always distinguished his race, he enabled Priestley to advance scientific discoveries to a stage which, by making chemistry an exact science, has given us a Humphry Davy, a Faraday, a Tyndall, and a Huxley.

The connection between Lord Shelburne and his protégé existed from 1773 to 1780. In the latter year, Priestley, with his pension of £150 a year, as what is called in Yorkshire a "stand-by," transferred himself to Birmingham. Well may the great manufacturing city of central England plume herself upon

the flattering words in which he proclaimed his settlement there to be "the happiest event in his life." Of a truth the Birmingham of 1780 had no small title to be regarded as the most vigorous intellectual centre of England. There were assembled such men as Watt, Boulton, Darwin, Galton, Wedgwood, Withering, Kerr, Hutton, and others, to whom the addition of Priestley was supremely acceptable. Have not the contributions made by their " Lunar Society" to the progress of human thought been written by Mrs. Schimmelpenninck and Joseph Parkes? But in days when the Church of England resisted freedom of inquiry with an intolerance which has always characterized the Church of Rome, the hold speculations of the "Lunar Society" were resented by those who professed themselves lovers of order and staunch adherents of "Church and King." In 1789 came the French Revolution and the sack of the Bastille. During the early days of the terrible upheaval in France, English Liberals, with Mr. Fox and Sir James Mackintosh at their head, welcomed the subversion of the Bourbon Monarchy with something of personal exultation. But in 1791 the atrocities of the French Republic already gave dismal presage of the Reign of Terror which included the execution of Louis XVI. and Marie Antoinette in 1793. Upon the 14th of July, 1791, a banquet was held in Birmingham, to celebrate the second anniversary of the capture of the Bastille. Dr. Priestley was not present, and had nothing to do with an incendiary hand-bill which maddened the High Church party of Birmingham to fury. But on the night of the 14th his meeting-house was burnt by the mob, and the following morning his house at Fair Hill, with its valuable library and philosophical apparatus, shared a like fate. His own life was in imminent jeopardy, and the remainder of his days, which, from 1794 to 1804, were passed in exile, at Northumberland, in Pennsylvania, was overclouded by the violence from which he escaped with difficulty. "You have destroyed," said he, in writing to the people of Birmingham, "the most valuable apparatus of philosophical instruments that any individual ever possessed; in my use of which I annually spent large sums in the

advancement of science, for the benefit of my country and of mankind. You have destroyed a library which no money can repurchase. You have destroyed manuscripts the result of the laborious study of many years, which I can never re-compose. And all this has been done to one who never did or imagined you any harm." The ceremony of last Saturday is an exemplification of the famous lines,—

"See nations slowly rise and meanly just, To buried merit raise the tardy bust."

The Birmingham of 1874 does penance for the acts of the Birmingham of 1791, and rejoices to put on record that no future Priestley shall suffer like injustice at her hands. But to the majority of those who contemplate this solemn act of retributive justice the uppermost thought will be that the England of to-day is separated by an impassable gulf from the England of eighty years ago, and that, too often unconsciously, we are now living in an era of enlightenment which, to quote Sir Richard Steele's words, "is in itself a liberal education."

"BIRMINGHAM MORNING NEWS," August 3.

The friends of freedom and free thought have now done what they could to atone for the outrage to which Joseph Priestley was subjected by Birmingham roughs. We are aware that not a few of those who countenanced the sack of Priestley's house, and the destruction of his library and philosophical apparatus, would have felt themselves insulted by identifying them with the class now mentioned; but "guilt equals whom it stains," and occasionally we find as perfect samples of the rowdy in broadcloth as in fustian. Those who interested themselves in the erection of the memorial that now graces Birmingham, displayed good taste in selecting Professor Huxley to deliver Priestley's eloge.

The learned Professor is largely endowed with many of the best qualities characteristic of Priestley's genius. Dr. Huxley's scientific training has indeed been more thorough, but the departed savant rivalled his eulogist in the versatility of his intellectual powers. It was said of Bishop Berkeley that from tar water to the Trinity no subject came amiss to that great philosopher. The range of Joseph Priestley's studies was nearly equally universal. Taken all in all he was, perhaps, the most voluminous writer of his day, and oddly enough the only place in which we ever saw a complete edition of his works was in the library of a very orthodox Scottish Presbyterian Professor. Dr. Priestley, in some respects one of the mildest mannered men that ever entered the controversial arena, was yet a man of war from his youth. There controversial arena, was yet a man of war from his youth. There was nothing of the mere dilettante scholar in Priestley's nature. His investigations, whether philosophical, political, or theological, were all pursued for strictly practical purposes. In philosophy, in politics, and in religion, the animating motive was the weal of his race. His life passed as "ever in the Great Taskmaster's eye." There was, indeed, a certain restlessness in his nature, which sometimes precluded that through study of a subject that is always advisable before rushing into print. When a man writes so much as Priestley wrote, some of it must necessarily be hasty and imperfect. Having, as he thought, seized the pith and marrow of a subject, he did not trouble himself with the elaboration of details, but, notwithstanding the rapidity with which he composed, there are many of his works that even now amply repay perusal.

In discoursing on his genius and character, Professor Huxley very felicitously hit off Priestley's peculiarities. In the versatility of his intellect there was something akin to Henry Brougham, and the calmness and imperturbability with which he dogmatized on all conceivable subjects, remind us not a little of the late Robert Owen. The Theological Academy to which Priestley was sent to prepare for the Dissenting Ministry, was a school admirably adapted to develop his peculiar genius. Professor Huxley told us on Saturday that the methods of study at Daventry were

better fitted to make acute than sound theologians. But, however that may have been, it is only justice to an eminently orthodox divine to state, that the plan of study pursued there was drawn up by Dr. Doddridge. The theological opinions Priestley ultimately adopted were not very popular in his day; but nobody can doubt the sincerity with which they were held, or the ardour with which they were advocated. Priestley, like Paul, believed it good to be zealously affected in a good cause, and, it is impossible not to admire his readiness to give a reason for the faith that was in him. Dr. Priestley was emphatically a dogmatic theologian, and we doubt very much whether in religion, in philosophy, or in politics, he would have highly esteemed any honour paid him "without the slightest reference to the objective value of the particular doctrines of which he was the Apostle." This, however, we may say: even those who most thoroughly dissent from Dr. Priestley's religious opinions cannot read his theological works without profit. There is a freshness, fearlessness, and intrepidity in his investigation of the profoundest problems connected with the nature of God and the destiny of man, that recall Milton's memorable lines—

"Led by thee into the heaven of heavens, I have presumed an earthly guest, And drawn Imperial air."

Indeed, on some important points, there was a greater similarity in the opinions of Joseph Priestley and John Milton than most people imagine. Professor Huxley stated that "Priestley had argued, with remarkable acuteness, that in the nature of man there was hut one substance, and that a material substance." Milton, it may be remembered, in his work on Christian Doctrine, asserts, "That man is a living being, intrinsically and properly one and individual, not compound or separable, not according to the common opinion, made up and framed of two distinct and different natures, as of soul and body, but the whole man is soul, and the soul man—that is to say, a body or substance individual, animated, sensitive and rational." Priestley knew nothing of Milton's

speculations on this subject, but, read in the light of the passage now quoted, these lines from the Fifth Book of "Paradise Lost" possess a special claim on our attention:—

"O Adam, one Almighty is, from whom All things proceed, and up to him return, If not depraved from good, created all Such to perfection, one matter all. Indued with various forms, various degrees Of substance, and, in things that live, of life. But more refined, more spirituous, and pure, As nearer to him placed, or nearer tending, Each in their active sphere assign'd. Till body up to spirit work, in bounds Proportion'd to each kind. So from the root Springs lighter the green stalk, from thence the leaves. More aery, last the bright consummate flow'r Spirits odorous breathes, flow'rs and their fruit, Man's nourishment, by gradual scale sublimed, To vital spirits aspire, to animal, To intellectual, give both life and sense, Fancy and understanding, whence the soul Reason receives, and reason is her being, Discursive or intuitive."

In reproducing these speculations it is not necessary either to reprobate or endorse them. Perhaps, as the essence of matter is still a mystery, it were wise not to dogmatize too peremptorily on the subject. Milton's views have almost escaped criticism, but with reference to Priestley's theories, the late Dr. Channing acutely remarked, "That while anxious to make the soul material, for this purpose he was obliged to change matter from a substance into a power—that is, into no matter at all; so that he destroyed in attempting to diffuse it. Milton also, it will be observed, when "body up to spirit works" has matter idealized, transfigured, glorified. But a truce with criticism on a topic so recondite. In examining the metaphysical theories of Reid, Beattie, Oswald, and Hume, Dr. Priestley exhibited all his wonted acuteness. Of Beattie, Hume remarked that his "Essay on Truth" was "philosophy for the ladies," and in discussing that essay, Priestley finds

many weak joints in Beattie's armour. There was something eminently characteristic in the zeal with which Priestley esponsed Jonathan Edwards' theory of necessity. Instead of believing, with the poet, that God, "binding nature fast in fate, yet left free the human will," Priestley held, with New England's great Calvinistic theologian, that the volition of man obeys laws not less inexorable than those which guide the stars in their courses. But however acute his metaphysical and theological speculations may appear, it is upon his discoveries as a chemist that Priestley's fame chiefly rests. Respecting these it has been justly said, "the very air we breathe he taught us to analyze; he first made known to us the proper food of vegetables; and in what the difference between these and animal substances consisted. To him pharmacy is indebted for the method of making artificial waters, metallurgy for more powerful and cheap solvents, and chemistry for a variety of discoveries that have remodelled that science." What is the more remarkable in reference to these discoveries is What is the more remarkable in reference to these discoveries is the fact that when Dr. Priestley began his experiments he knew very little of chemistry. An intuitive sagacity, however, amply compensated for any lack of the lore of the schools. Professor Playfair has indeed asserted that the activity rather than the force of Priestley's genius is the special object of admiration, but where such prodigious activity existed the force must also have been immense. The weak side of his intellect was its intensely objective character. "Science, morals, politics, philosophy, religion, all came to him under the type of the sensational."

We are not disposed to estimate Priestley's political writings so highly as Professor Huxley. There is nothing in those writings that is specially original. The ardour with which he espoused the cause of the French Revolution doubtless sprung from that innate love of liberty which formed the guiding light of his intellectual career, but he might have detected earlier the distinction between liberty and license which wise men were compelled to draw in their estimate of that event. It was lack of this that in America rendered Priestley more the friend of France than England, and embittered the philosopher's relations with Washington. With a

sagacity to which Priestley was a stranger, Washington saw exactly the worth of a French alliance. The soldier of American independence had in his possession proofs that, in assisting America, it was rather a desire to humiliate England than to benefit America, to which the interposition of France was due. This knowledge, together with a love for the old land, which even the Revolution could not quench, kept Washington free from the entanglements of a policy that might have proved fatal to American independence. At the very time when Priestley and men of his type saw in France under the Revolution a "Paradise Regained," De Tocqueville tells us "the French Government was on the point of falling under the weight of its vices and its follies devoured by innumerable diseases, and in spite of its youth, consumed by a senile consumption. It would, however, be a mistake to condemn too harshly Priestley's faith in the perfectibility of France. There was a notion in those days that the tricolored flag would prove a Pharos to the nations. Joseph Priestley was personally incapable of cruelty, oppression, wrong, or injustice in any form. Even in what we deem mistaken about his French predilections, the light that led astray was light from heaven. To the perfection of his genius, all that Priestley needed was a certain repose of character which nature had denied him. But after every deduction, and every drawback, his name is destined to live "a light, a landmark, on the cliffs of fame." Today these words in which Robert Hall spoke of the persecution of which Dr. Priestley had been the victim, are signally realized: "Distinguished merit will ever rise superior to oppression, and draw lustre from reproach. The vapours which gather round the rising sun and follow it in its course, seldom fail at the close of it to form a magnificent theatre for its reception, and to invest with variegated tints and with a softened effulgence the luminary which they cannot hide."

We cannot close this inadequate estimate of a great and good man without tendering our thanks to the gentlemen who specially interested themselves in the erection of the beautiful statue, now the property of the town, and, as the representative of this consecrated band, Mr. Samuel Timmins merits honourable mention. The speeches on Saturday were all that could be desired, but the most touching episode of the day was when Mr. Timmins read the American telegrams. These telegrams told that blood is thicker than water, and rendered it sufficiently obvious that the alliance between Britannia and her daughter Empire is an accomplished fact.

"BIRMINGHAM POST," August 1.

The town of Birmingham does honour to itself to-day, by honouring with public and corporate recognition the memory of Dr. Priestley. The memorial includes the erection of a statue, the fixing of a tablet on the site of Priestley's house at Fairbill, and the foundation of a Priestley prize or scholarship, the exact character of which has yet to be decided, in accordance with the funds placed at the disposal of the committee. In these several ways the greatness of Dr. Pricstley, his world-wide renown, and his local connection, will be appropriately recognized. The scientific magnates who visit us to-day-Professor Huxley at their head-will probably dwell with special interest upon Priestley's eminent scientific labours and philosophical researches. Members of his own religious denomination will reflect with just pride upon the honours rendered to one of their most brilliant ornaments and most accomplished and learned teachers. But there is another and larger class, in which men of all creeds and parties may be ranked, who will feel special satisfaction in the ceremony of this morning. All who value the reputation of Birmingham will rejoice that an act of atonement, too long delayed, is at last accomplished. All who cherish the rights of free thought and free speech will be thankful that these are vindicated before the world, in the place where they were ouce most vehemently and cruelly denied, and in the person of a man whose fearlessness and honesty brought upon him injustice and calamity.

We confess that this aspect of the Priestley celebration has, for us, the stronger interest and significance. Without undervaluing the great scientific discoveries which are identified with Priestley's name, we feel that the doing of a public act of justice to him, as a man, is the distinguishing mark of the share which Birmingham, in its corporate character, takes in these proceedings. impossible to look back to 1791 without a feeling of shame. us, in this day, it seems incredible and impossible that, little more than eighty years ago, Birmingham-now the freest and most liberal community in the kingdom—should have been steeped in bigotry incalculable, and under its influence should have given way to a frenzy all the more disgraceful because it was stamped with the sacred name of religion. We need not recall the incidents of that dreadful time—the fierce passions aroused by the so-called "better classes;" the drinking "confusion and damnation" to the Dissenters; the bitter pamphlets and hateful pulpit harangues of some of the clergy of the day; the riot and violence of the mob thus instigated to fury; the danger to life, the burning and destruction of property; the general lawlessness to which, for a time, the town was abandoned, and from which it was rescued only by the strong arm of the law, and the intervention of military force. This is a chapter of our local history which every Birmingham man would be glad to forget, if that were possible. By the proceedings of to-day we shall at least show that we have taken the lesson to heart, and that, by atoning for the outrage, we have done something to blot out the record

It is at once healthier and pleasanter to contrast the Birmingham of these days with the Birmingham of 1791—the "Church and King" riots—than to dwell exclusively upon the past. Why, if Dr. Priestley were living amongst us now, he would be one of our foremost leaders and most honoured citizens. Birmingham would feel that, alike by the graces and virtues of his character, his fearless independence, and his noble honesty, as by the greatness of his scientific labours, he conferred priceless honour upon our community. There would be no question of public interest in

regard to which he would not be appealed to; no position capable of being held by a minister, which would not be gladly and proudly offered to him. His wisdom would direct, his courage sustain, his sweetness purify, and his eminence adorn, the current of our public, social, and private life. We should count him as one of the chief glories of the town. The names of Priestley and of Birmingham would be inseparably united in honour, as they are now, unhappily, linked together by memories which have in them more of pain than of pleasure.

If the Birmingham of eighty-three years ago had only had eyes to see and ears to hear, it would have rendered to Priestley the homage and the affection which would be paid to him by the Birmingham of to-day. It is satisfactory to reflect that by the best and most cultivated citizens of that day in the town and its neighbourhood he was adequately esteemed. Watt, Boulton, Darwin, Galton, Wedgwood, Fothergill, and Withering were amongst his intimate and cherished friends. With many others, of high intelligence, though less known to fame, he held kindly and affectionate relations, as a friend and a pastor. How deeply he appreciated this intercourse may be gathered from his most interesting autobiographical "Memoirs." "I consider (he writes) my settlement at Birmingham as the happiest event in my life, being highly favourable to every object I had in view, philosophical or theological; the congregation I serve is the most liberal, I believe, of any in England; and I have been minister here between seven and eight years, without any interruption of my happiness." Again—this was in 1787—"At present I thank God I can say that my prospects are better than they have ever been before, and my own health, and that of my wife, better my happiness." Again—this was in 1787—"At present I thank God I can say that my prospects are better than they have ever been before, and my own health, and that of my wife, better established, and my hopes as to the disposition and future settlement of my children satisfactory." One more passage should be quoted, to illustrate at once the character of Priestley's mind, and the view he took of his position in Birmingham: "I esteem it a singular happiness to have lived in an age and country in which I have been at full liberty both to investigate, and, by preaching and writing, to propagate, religious truth; that though

the freedom I have used for this purpose was for some time disadvantageous to me, it was not long so; and that my present situation is such that I can with the greatest openness urge whatever appears to me to be the truth of the Gospel, not only without giving the least offence, but with the entire approbation of those with whom I am particularly connected."

Four years afterwards Priestley discovered, by bitter experience, now unfounded was his estimate of the liberty he enjoyed, and of the appreciation in which he was held. While, as we have seen, he was cherished by the more intelligent class, the rest most cruelly misinterpreted him. The clergy were irritated by his defence of Unitarian doctrine; the Tories were exasperated by his consistent Liberalism. By one section he was denounced as an Atheist; by another as a Republican and revolutionist. Yet, as he understood Christianity, no man was a more sincere, devout, and humble-minded Christian; and no man could have been a more truly loyal subject, or one more rationally attached to the institutions of his own country. True he sympathized with the American colonists in their resistance to tyranny, and with the French people in their revolt against hateful and oppressive feudàlism; but in our days this cannot be reckoned as a crime or even as an error, for we are now all at one in admitting the principles which inspired those great efforts on behalf of constitutional freedom and individual rights. Indeed, in his own day, nothing but theological rancour of the most bigoted type, and political hatred of the most virulent and unreasoning kind, could have imputed to Priestley either ideas or desires beyond those which a wise and patriotic citizen, and a good subject, might be commended for advocating. In the noble letter which we printed yesterday, he truthfully describes himself as in politics a constitutional Reformer: and the tone of the document-its moderation, charity, and sweetness-proves that in practical religion he was immeasurably the superior, not only of those who actually sought his life, and wrecked his home, but also of those who by their teaching and their counsels, if not by their actual guidance, stirred up the mob to the work of destruction.

These observations, the memoir which appeared in our columns yesterday, and his own letter which accompanied it, may serve to give our readers an idea—though a faint one—of the greatness and goodness of the man whom "the baser sort" in Birmingham so deeply injured eighty years ago, and to whose memory "the better sort" in Birmingham do honour to-day. To the ignorant and prejudiced—to those who either do not read history, or who pervert what they read-the name of Priestley may still be a name which excites in their minds an unreasoning passion. those who know the events of his time, and who are acquainted with his character and his merits, the name of Priestley recalls the memory of a man adorned by the brightest and noblest qualities of humanity, singularly sweet in temper, and peaceful in disposition; of absolutely blameless life; unselfish in the highest degree; one so kind and good that he never thought or spoke harshly, even of his enemies, or did any one of them an evil turn; a loving husband, a tender father, a sincere friend; a faithful and laborious pastor; a diligent and honest seeker after truth, and a fearless expositor of it as it seemed to come to him; a true lover of his country, and a loyal subject of his King; a reformer when, as experience taught him, reform was perilous to its advocate; a philosophic student whose researches stimulated further inquiry, and themselves enriched the stores and enlarged the bounds of science; a scientific discoverer whom to-day the old world and the new unite to honour-for our celebration in Birmingham is but one of a series, in which France and America join hands with Priestley's native land.

"BIRMINGHAM POST," August 3.

In another page we have given a full report of the proceedings which took place on Saturday—the unveiling of Priestley's statue, the speeches of Professor Huxley, the Mayor, and Mr. Dawson,

in the Town Hall, and the further speeches at the luncheon. The commemoration passed off admirably—with great spirit, and fine weather. Special interest attached to the ceremony from the presence of Mrs. Joseph Parkes, the widow of a man whose memory is still cherished and honoured in Birmingham, and the granddaughter of Priestley: the only person now living, indeed, who had seen the philosopher himself in life. Her testimony is valuable to the faithfulness of the likeness achieved by Mr. Williamson, the sculptor of the memorial statue. As to the general quality and effect of the artist's work, of course all who see the statue can form their own judgment; and on Saturday and yesterday large numbers of persons availed themselves of the opportunity of doing so. Some of them, we noticed, went from the Priestley statue, to that of Watt, on the other side of the Town Hall, and came back satisfied with the comparison; the greatest compliment, we think, Mr. Williamson could receive. Indeed, the two statues come well together. Priestley has not the commanding height and majestic presence of the great engineer. nor his commanding dignity of feature and expression; but Mr. Munro and Mr. Williamson have obviously worked from the same "motive," and have, consequently, attained the same kind of success. Priestley is represented as in the garden of Lord Shelburne's house at Calne, holding in one hand a "burning lens," and in the other a tube, dipped in a vessel containing mercury, this vessel being placed upon a rustic pedestal. The incident represented is the philosopher's great discovery of oxygen, and the importance of the discovery is indicated by the attentive, or even the intense, gaze with which he regards the action of the sun's rays, concentrated through the lens upon the mercury. The expression is that of natural, unaffected abstraction from surrounding objects, and fixed regard upon the experiment in hand. position of the figure is at once firm and easy; the quaint, but not ungraceful dress of a hundred years ago, is remarkably well treated—at once picturesque and realistic: even the wig, with its stiff curls, does not detract from the general simplicity. In his modest speech at the luncheon, Mr. Williamson said that this was

the first considerable work he had undertaken on his own account; and we must say that both he, and those who commissioned him, have good reason to be satisfied with the result. The statue, indeed, is not only a worthy memorial of a great and good man, but is a fitting ornament for the principal "place" of Birmingham. As we saw it, last night, it stood out nobly, in the purity of its white marble, and the gracefulness of its outline, against the gray columns of the Town Hall, backed by a grand and glowing sunset.

It will be noticed, in the report, that telegraphic messages were interchanged between this country and the United States, on the occasion of the simultaneous commemoration of Priestley's discoveries. As a proof of the progress of science since Dr. Priestley wrote his famous "History of Electricity," and Benjamin Franklin drew sparks from a thundercloud - a little more than a century ago-it is worth recording that the message was forwarded from Birmingham to Northumberland, Pennsylvania, and the return messages were received in Birmingham in less than eleven Thanks to the special care and courtesy of Mr. Thomas Herbert, the chief electrician here, the Birmingham message despatched at 12.30 P.M., on Friday, had its first answer at 89 P.M., and its second answer at 11.15 P.M. on the same day. The actual transmission of the messages, of course, occupied a far shorter time, and probably several hours were lost before the replies could be obtained from the American chemists who met on Friday evening in honour of Priestley's fame.

As an illustration of the interest felt in the Birmingham proceedings, we may mention that Mr. W. A. Illoyd, of the Crystal Palace Aquarium, had printed and sent here for distribution an interesting little brochure, containing a portrait of Priestley, engraved from the well-known Wedgwood medallion, and a brief account of the Doctor's scientific labours. Sermons appropriate to the commemoration were delivered yesterday by Mr. Dawson, at the Church of the Saviour; and by the Rev. H. W. Crosskey, at the Church of the Messiah.

THE "TOWN CRIER" (BIRMINGHAM), August.

The erection of the statue of Joseph Priestley, in one of our most public places, will ever be counted as one of the real honours of our town. A few self-styled Christians, who look back on the Riots of 1791 with a secret wish that such summary treatment of theological and political heretics could be restored now, and who forget the precepts of forgiveness of injuries and repentance of sins, may mourn the day when such a statue is unveiled. intelligent, the thoughtful, the hopeful, will see Priestley's statue with very different eyes. It marks a score of changes in the spirit and taste and temper of our town. It shows that now, at any rate, we have some love of art. It shows that we have read the progress of science and the history of our own town. shows that we have learned to forget the fire and fury of the troublous days, and to honour a benefactor of mankind, although "our fathers were his foes." It shows that we are coming to see that a man may be a great genius and a good citizen whatever his creed. It shows that we are beginning to honour the arts of peace, for, while our statues began with Nelson, we have more highly honoured Attwood and Peel, and Sturge and Watt.

Priestley the philosopher, the discoverer, and not Priestley the preacher, is now to receive public honour in our town. Even the Unitarians, who, with a cold-blooded indifference to the local cradle of their sect, sold Priestley's chapel to the Papists, have frankly and honourably joined in this public tribute to the preeminence of Priestley in the world of science. The "dead statue" is full of life. The "marble man" recalls Preistley's genius and fame. The very presence of the man in the midst of our busy town, which his discoveries have enriched, is a new glory to the place. Even the most thoughtless passer-by will be tempted to ask who Priestley was, and what he is doing, and why his name and memory are so honoured here? Because he was one of the most famous discoverers of his own or any age. Because men of science rank his discovery of oxygen, and his detection of the

subtle laws which harmonize animal and vegetable life, and give a new glory to the mysteries of creation, as worthy to be named with Newton's demonstration of the law of gravitation, or Harvey's discovery of the circulation of the blood. Because he was a true philosopher, humble, patient, hopeful, careful, honourable, generous, frank, honest, self-denying, and gave up what might have given him a princely fortune to the free use of the world. Because wherever his name is known, in the laboratories of Europe, in the scientific colleges of the United States, wherever chemical science is followed, wherever electricity is known, wherever physiology is studied, the name of Joseph Priestley is honoured as a "household word," and his countless contributions to almost every department of science have secured him an undying fame.

Our own town owes his memory a more special honour as some reparation for the wrong done to him when, in one of the furious outbursts of mistaken zeal and brutal bigotry, Birmingham was disgraced by the burning of his books, the destruction of his apparatus, and the utter ruin of the records of discoveries which would have enriched mankind. To revive the memory of those troublous days would have been an error of taste, so the promoters of the Priestley Statue have very wisely honoured, in this noble statue, only the man of science—the benefactor of the world. The committee has made no reference and no appeal on the theological tenets or the political creed of Priestley, and so men of science in all parts of the world, and men of varied opinions, have united to honour the memory of the man who lived amongst us nearly eleven years a pure and blameless life. Many amongst us, however, can never fail to feel that the silent statue of the Father of Pneumatic Chemistry, the patient, thoughtful, true philosopher, calmly making his greatest discovery, and absorbed in his work, while the busy crowd flows by, forms a late but public penance for the sins of our fathers, when, in the fierce contests of that time, the true principles of civil and religous liberty were little understood. Thanks to the martyr-spirit of Priestley and his contemporary patriots the good fight was fought, the victory won; and now the war is over, and its traces are lost in the progress of science, the advancement of education, and the general improvement of the people, all can forget the fury of the conflict and rejoice in the arts of peace.

" MANCHESTER GUARDIAN," August 3.

It needed no inauguration of a statue at Birmingham to appease the manes of Priestley. That has long since been done by the revolution in local feeling which has made Birmingham more distinctly representative of Priestley's political views than any other place in the kingdom. At present Birmingham could not, with the slightest propriety, cast the first stone at a man holding extreme opinions. Professor Huxley, who unveiled the statue on Saturday, is to be congratulated on the manner in which he read the moral of Priestley's persecutions. Priestley was in all respects a typical victim of mob violence, for in his case, as in so many others, the wrong man was selected. Professor Huxley made use of a very happy illustration in his reference to the very rough treatment which Priestley experienced when he passed from the domain of science into that of politics and religion. "In all cases the good Doctor struck his blows with the same entire absence of passion as the smith when he was smiting his iron." "But if the iron could speak it would probably take a view of the matter not quite so devoid of passion; and the parties whom Priestley attacked could speak and had very loud voices." There was something of repentance, no doubt, in Birmingham's goodnatured laugh at this and similar sallies. If the repentance comes too late to benefit Priestley, it may yet bear precious fruit of toleration for his successors in the advocacy of unpopular opinions.

"NEWCASTLE CHRONICLE," August 3.

The statue just erected at Birmingham in commemoration of Dr. Priestley, together with the ceremony consequent upon its formal presentation to the town, concentrates public attention upon a memorable career enacted in one of the most troubled eras of our recent history. Science by the ceremonial of Saturday and in the person of Professor Huxley owned its obligations to the genius of Priestley, whilst the general public, by their presence and sympathy, did something towards paying off a national debt. Priestley's memory is many-sided, and appeals with singular comprehensiveness to the sympathies of the present. The purely religious man has been well typified within the past few days in the statue to the memory of Bunyan, which is raised in Bedford, and was fittingly unveiled by the high priest of Toleration, the Dean of Westminster. The politician has had honour done to his memory by the statue in Palace Yard which Mr. Disraeli has just dedicated to the late head of the House of Stanley. The political philosopher is about to be commemorated in a memorial of John Stuart Mill. The ideal scientific man stands before us in the memory of Faraday, whose name is associated with so much that all men value and revere. In Priestley we have the scientific man, the deeply religious man, the philosopher, and the politician, all in one. Recognition of his greatness has come late, but that only shows how far ahead he was of his contemporaries, and how grievously wronged he was by the public opinion which tolerated conduct that practically broke his heart and sent him to seek rest and sympathy beyond the sea.

The trouble of the times in which he lived was well illustrated in Dr. Priestley's life. The days of his years extended from 1733 to 1804, and a glance down the index of history will show how eventful was the period of his career. Foreign wars, civil dissensions, dynastic rebellion, colonial disaffection, Irish troubles, religious rancour, social anarchy, were characteristics of his time. He was twelve years old when the British defeat at Fontenoy gave the Chevalier encouragement to renew his attempt upon the throne, and Culloden was fought when he was sowing the seeds of

disease in his constitution by racking his young brain over the Syriac, Chaldean, and Arabic tongues. Two years afterwards he saw closed the Austrian war of succession by the Treaty of Aix-la-Chapelle, and found thirty millions added to the National Debt. He was thirty years old at the close of the Seven Years' War; General Wolfe had fallen before Quebec in the interval, Canada had been conquered, and George II. had died. He was in his prime at the declaration of American Independence, and when Lord George Gordon thundered at the doors of St. Stephen's, with the cry of "No Popery" he was writing his "Letters to a Philosophical Unbeliever" and endeavouring to warm up the cold reasonings of Hume. When the Irish Parliament was declared independent, when Gibraltar was besieged, and the independence of the United States recognized, he had been writing his "History of the Corruptions of Christianity," and reviewing opinions about Jesus Christ which he had imbibed from the orthodox associations of early years. He saw the days of Pitt and Fox, the Warren Hastings impeachment with-all its surroundings, and when the current of events which began with the assertion of American independence ended in the French Revolution, he was dashing off vigorous protests in favour of religious equality and throwing all the energy of his nature into protests against the Civil Disabilities Act, which, . since the days of Charles II., still remained in force with regard to Dissenters. It was still law that no person could hold any office or place of trust, civil or military, who had not declared disbelief in transubstantiation, and taken the Sacrament according to the rites of the Church of England. No person could be a member of Parliament who had not signed a declaration repudiating all Popish doctrines, and offenders were punished by fine of £500 and the suffering of numerous disabilities. The legislation was originally directed against the "Papists," but the Test Act bore on Protestant Dissenters equally as severely as on them, since it practically restricted all offices of trust to members of the Church of England. It was against this and similar injustice that Dr. Priestley directed his most vigorous logic, and some estimate of his industry may be obtained from a statement in his biography that

he published about twenty volumes in favour of religious liberty. The Test Act was not the only existing law which oppressed Dissenters. The Toleration Act, passed in 1689, exempted Protestant Dissenters who took the oaths of allegiance and supremacy, and made the usual declaration against transubstantiation, from the penalties incurred by absenting themselves from church or by frequenting "unlawful conventicles." But the ancient statutes remained unrepealed as against Unitarians and Papists. Dr. Priestley, after undergoing several changes of religious conviction, or rather by a gradual process of reasoning, having come to regard that form of belief as the truth, was consequently under a legal disability either to preach the gospel or attend any meeting not sanctified by the rites of the established religion. The law was not, however, enforced, and Dr. Priestley, living in Birmingham, varied scientific inquiry on week days with religious exercise on Sundays, in a chapel called in Birmingham the new Meeting, and as the pastor of a congregation holding the same religious faith as He was thus engaged when the French Revolution of 1789 loosed the flood-gates of popular fury, and shook the faith of the timid in the wisdom of popular power. Burke, who held a high place in English opinion, and who himself had braved the ignorance of reaction, and been in the front of the Liheral battle, at once took fright and recanted. He was the type of many of his countrymen, and his "Reflections" gave graceful expression to their sentiments. Priestley, more penetrating, saw the good below the evil, felt the impetus given to freedom, although shocked at the price which had been paid to despotism, and replied to the great orator with characteristic outspokenness and vigour. Such candour was dangerous. Priestley paid dearly for being elected a citizen of the French Republic. That, and the fact of his being a Dissenter were too much in days when, says quaint Robert Bage, the Quaker, "no man's ear was open to anything but 'Damn the French,' and 'Damn the Presbyterians.'" "In this country," says the same authority, in another letter to Hutton, the Birmingham historian, "it is better to be a Churchman, with just as much common sense as Heaven has on an average been pleased

to give an Esquimaux, than a Dissenter with the understanding of a Priestley or a Locke. I hope, dear Will, experience will teach thee this great truth, and convey thee to peace and orthodoxy, pudding and stupidity." Experience in the shape of a mob instigated by churchmen, demolished Priestley's house with many others, Hutton's included, burnt books and philosophical instruments, levelled the meetings, old and new, to the ground, and sent forth the devoted and philosophic Priestley in his later years as an alien to a strange country, which, it must be said, received him but coldly. When he left England for America "a few members of the University of Cambridge" presented him with a silver inkstand, regretting that "this expression of their esteem is occasioned by the ingratitude of their country." In Pennsylvania, whither he emigrated, two disadvantages met him. He thought to form a Unitarian congregation, but he found the people careless of religion; he thought to be received with favour in the great Republic of the West, but he states himself that the former democratic spirit had subsided, and that to be a friend of the Revolution and a citizen of France was sufficient to provoke resentment. A heavier hand was soon upon him than religious persecution or political resentment and he died wondering at the narrowness, ingratitude, and blind fury of ignorant man, but confident to the last in his religion, anxious to finish what work was possible in his life, and hopeful of a spiritual immortality.

The range of Dr. Priestley's life was wide and deep. In science he was excursive rather than concentrative, but his discoveries of oxygen and other gases marked an epoch in science, and have in effect revolutionized industry and manufactures, as well as the more subtle theories regarding conditions favourable to healthy life. Unfortunately for Dr. Priestley, considering the bigotry of his time, his mind rested not on abstract science alone. Early in life he showed a predilection for theological inquiries, and all through, the relation of man to his Maker was the point to which his speculations tended. Politics and science claimed attention, but they were means of recreation rather than the serious objects of life. Professor Huxley on Saturday opened his speech by the statement

that Dr. Priestley would desire most of all to be remembered as a Unitarian, and if the promulgation of a theory of Divine existence when called by a sectarian name seems to be a narrowing of the object of a great man's life, it is at least a fact that his mind habitually rested from the turmoils of time upon the Eternal. When he went to Paris the leading scientific men of the fair city said he was the only man of common sense whom they ever knew to be a believer in Christianity, and we find him cautioning his friend Hutton not to say he considers all religions alike, because two opposite systems could not both be true, and not to condemn proselytism, because that would involve in censure the apostles and reformers of all ages. It was, doubtless, this exalted view of the province of religion in daily life that made his efforts on behalf of religious liberty so vigorous. We now reap in peace and quietness what he sowed in much trouble and amid much misunderstanding and opposition. The times have changed since he lived. It was the populace who destroyed his philosophical apparatus and burnt his library because he was in favour of human freedom. It was the people, led by the Tories of the time, who wreaked their blind fury on men who were labouring to dispel the ignorance which led to class Government and glaringly unequal laws. The people may now be trusted to be on the side of freedom. They are in turn struggling to remove the last remnants of legislation which in Priestley's time made a man's religion a barrier to his earning a livelihood, and the subscription of a particular creed a passport to place and promotion. And this man who began and continued life as a Christian preacher, who earned a living for some time as a poor schoolmaster, at another time with Lord Shelburne as a kind of glorified tutor, poor and to some extent dependent, then as a Unitarian minister, now rejected by the "Board of Longitude" on account of his religious views from accompanying Captain Cook to the South Seas, then driven forth from his home and country, was a man who laboured in season and out of season in search of truth and on behalf of freedom. He did the kind of work which generations ever and anon turn back to approve if at any time they have been so benighted as to despise it.

"THE LEEDS MERCURY," August 3.

The name of Dr. Priestley is familiar to Yorkshire people as that of one of its most distinguished sons, and no one need ask why the centenary of his great discovery should be celebrated in Leeds. It was in Leeds, whilst minister of Mill Hill Chapel, that he made the important discovery of oxygen gas, which he called dephlogisticated air. He had previously published several valuable communications on electricity, and his principal work was so well received that it passed through four editions. On coming to reside in Leeds, his attention was directed to pneumatic chemistry, by the apparently trivial coincidence that his dwelling was near a brewery. His experiments in this direction were varied by theological studies, but they were carried on with so much ability that in afew years he had built up a reputation which will never be forgotten by the world of science. He not only discovered oxygen gas, but nitrous gas, nitrous oxide gas, nitrous vapour, carbonic oxide gas, sulphurous oxide gas, fluoric acid gas, muriatic gas, and ammonia-It is in connection with the first of these discoveries one of the most important ever made—that it is proposed to hold the meetings advertised in our columns to-day. In America, where he died, after being driven from his own country, the men of science are commemorating his great discoveries; and in Birmingham, where his house was wrecked and he was hunted as a criminal by an infuriated mob, the inhabitants are doing their best to redeem the wrong thus done by presenting to the town a statue erected to his memory. Happily in Leeds we have no injustice of this kind to atone for; but it is well that on the centenary of his chief discovery we should be reminded how much we owe to the experiments and labours which have made the name of Priestley immortal.

"CHURCH BELLS," August 8.

The town of Birmingham, which strewed Priestley's books over half a mile of road, and covered his library-floor several inches deep with torn manuscripts, and obliged him to seek safety in a post-chaise, has been erecting a statue of Sicilian marble in his honour, and Professor Huxley has been making an eulogistic speech on the occasion.

It has been asserted on high authority, that no one achieved more in his own chosen line—that of chemistry—considering the disadvantages under which he laboured, than Priestley. It was only by means of the strictest economy he was able to begin his investigations by purchasing an air-pump and electrical apparatus. He made incessant experiments, and regularly registered every phenomenon as soon as he observed it. We need say no more of this, than that he discovered oxygen (a century ago last Saturday), that important event being represented on his statue.

Unfortunately, we think, for his peace, and the progress of his scientific studies, Priestley brought his ever-inquisitive and restless mind to bear on Revelation, and, even at the age of twenty, he says he came to embrace what is generally called the heterodox side of the question, whilst he was being educated in the straitest sect of Calvinistic orthodoxy. Before he was twenty-five a careful examination of the Old and New Testaments had convinced him that the doctrine of the Atonement, even in its most qualified sense, had no countenance either from Scripture or reason; and he composed a work, entitled The Scripture Doctrine of Remission, which shows that the death of Christ is no proper sacrifice nor satisfaction for sin, but that pardon is dispensed solely on account of a personal repentance of the sinner.

Thus early was our English philosopher landed in Unitarianism. No doubt his unfortunate opinions were the result of honest convictions. At the same time he could say, "I believe the prophecies in our Bible were given by God; that the Gospels are true; though many things I yet doubt of."

It is instructive, as comparing the English and the French mind, that when he accompanied his patron, Lord Shelburne, to the Continent, and was introduced to the great French savants, he found them all atheists to a man. They told him he was the one solitary scientific individual they ever met who was a Christian.

Filled with solicitude on their account, he wrote a book to enlighten such philosophic unbelievers.

As a politician Priestley held, as might be expected, advanced liberal views, though Huxley pointed out on Saturday that his views were at one with others of a kind which were regarded at the present day as commonplaces by persons of all political parties. It was Priestley's defence of the principles of the French Revolution, or rather his reply to Burke's reflections on that great political catastrophe, which led to his being nominated a citizen of the French Republic. The Republic was then extremely odious to the Birmingham people, and Priestley's connection with that country as a citizen, and the ironical tone of his letters, roused their anger to fever height.

But tempora mutantur. Birmingham may now be desirous of changes Priestley never contemplated, and his eulogist tells us that his views on the establishment of the Church were marked by such moderation and good sense as would appear distastefully conservative to the advanced thinkers of that great town.

We can agree with Mr. Huxley when he says that the state of England is better now than then; that the House of Commons is a fairer representation of the nation; that the Church is neither torpid nor scandalous; that life is fuller of advantages; that science is unlocking each day fresh mines of wealth.

We must lament Priestley's Unitarianism, as we lament a man's blindness. We cannot go all his lengths, of course, in the direction of political changes; but we are willing to admit that his principles, checked and controlled by those of conservative minds, were of service; and that to him and to such men much of the beneficent change which has passed over the face of the world since the eighteenth century is due.

LINES ON JOSEPH PRIESTLEY.

Seer of the late won renown,
Lo! we have crown'd thee;
Stand with the heart of the town
Throbbing around thee;
Stand 'mid the fashion and pride,
Traffic and barter,
God-lit apostle a d guide,
Champion, martyr.

What though the priest-ridden tribes
Feared thee and doubted;
Mock'd thee with pitiless gibes,
Scorn'd thee, and scouted?
Seer, we acknowledge thee now,
Blessing thy mission;
Seer, with the luminous brow,
Hear our contrition,

Lo! from the land of thy grave,
Come to our meeting,
Flash'd o'er the waste of the wave,
Homage and greeting.
Nations an ocean disparts
Love has made neighbours,
Bless thee with reverent hearts,
Honour thy labours.

Boons of magnificent worth,
Though thou didst lend us,
Wring from the heart of the earth
Secrets tremendous;
Little thy miracles wrought
Thus could avail thee—
Rather apostle of thought,
Prophet, we hail thee.

This was the strength of thy life
This thy prevailing—
Ne'er in the thick of the strife
Blenching or quailing.
Truth is our destiny's goal,
Truth must be sought for;
Ay, and in anguish of soul
Wrestled and fought for.

Thought is the lantern we hold;
Dogmas may crumble,
Proud superstitions of old
Totter and tumble!
Foes may deride us and hiss,
Friends may be chiding,
Yet to hell's blackest abyss
Follow her guiding.

Thou in that land of delight
Sweetly art resting,
We the black billows of night
Faintly are breasting.
Yet, though the gulf of the wave
Threaten to hide us,
Knowing our leader was brave,
Strength is supplied us.

Seer of the late-won renown,
Lo! we have crown'd thee;
Stand with the heart of the town
Throbbing around thee;
Stand, 'mid the fashion and pride,
Traffic and barter,
God-lit apostle and guide,
Champion, martyr.

Birmingham Morning News.

LETTER BY DR. PRIESTLEY ON THE BIRMINGHAM RIOTS.

In connection with the most striking incident of Dr. Priestley's residence in Birmingham—the destruction of his house and library by the "Church and King" mob, in 1791, it will be interesting to reprint the admirable letter which Priestley addressed to "the inhabitants of Birmingham" directly after his removal to London, in consequence of the riots:—

"My late Townsmen and Neighbours,-After living with you eleven years, in which you had uniform experience of my peaceful behaviour, in my attention to the quiet studies of my profession, and those of philosophy, I was far from expecting the injuries which I and my friends have lately received from you. But you have been misled. By hearing the Dissenters, and particularly the Unitarian Dissenters, continually railed at, as enemies to the present Government, in Church and State, you have been led to consider any injury done to us as a meritorious thing; and not having been better informed, the means were not attended to. When the object was right, you thought the means could not be wrong. By the discourses of your teachers and the exclamations of your superiors in general, drinking confusion and damnation to us (which is well known to have been their frequent practice), your bigotry has been excited to the highest pitch, and nothing having been said to you to moderate your passions, but everything to inflame them; hence, without any consideration on your part, or on theirs, who ought to have known, and taught you better, you were prepared for every species of outrage, thinking that whatever you could do to spite and injure us was for the support of Government, and especially the Church. In destroying us you have been led to think you did God and your country the most substantial service.

"Happily, the minds of Englishmen have an horror of murde r

and therefore you did not, I hope, think of that; though, by your clamorous demanding of me at the hotel, it is probable that, at that time, some of you intended me some personal injury. But what is the value of life when everything is done to make it wretched? In many cases there would be greater mercy in despatching the inhabitants than in burning their houses. However, I infinitely prefer what I feel from the spoiling of my goods to the disposition of those who have misled you.

"You have destroyed the most truly valuable and useful apparatus of philosophical instruments that perhaps any individual in this or any other country was ever possessed of, in my use of which I annually spent large sums, with no pecuniary view whatever, but only in the advancement of science, for the benefit of my country, and of mankind. You have destroyed a library corresponding to that apparatus which no money can repurchase, except in a long course of time. But, what I feel far more, you have destroyed manuscripts which have been the result of the laborious study of many years, and which I shall never be able to recompose; and this has been done to one who never did or imagined you any harm.

"I know nothing more of the handbill which is said to have enraged you so much than any of yourselves, and I disapprove of it as much, though it has been made the ostensible handle of doing infinitely more mischief than anything of that nature could possibly have done. In the celebration of the French Revolution, at which I did not attend, the company assembled on the occasion only expressed their joy in the emancipation of a neighbouring nation from tyranny, without intimating a desire of anything more than such an improvement of our own Constitution as all sober citizens of every persuasion have long wished for. And though, in answer to the gross and unprovoked calumnies of Mr. Maden and others, I publicly vindicated my principles as a Dissenter, it was only with plain and sober argument, and with perfect good humour. We are better instructed in the mild and forbearing spirit of Christianity than ever to think of having recourse to violence, and can you think such conduct as yours

any recommendation of your religious principles in preference to ours?

"You are still more mistaken if you imagine that this conduct of yours has any tendency to serve your cause, or to prejudice ours. It is nothing but reason and argument that can ever support any system of religion. Answer our arguments and your business is done; but your having recourse to violence is only a proof that you have nothing better to produce. Should you destroy myself, as well as my house, library, and apparatus, ten more persons, of equal or superior spirit or ability, would instantly rise up. If those ten were destroyed, an hundred would appear; and believe me that the Church of England, which you now think you are supporting, has received a greater blow by this conduct of yours than I and all my friends have ever aimed at.

"Besides, to abuse those who have no power of making resistance is equally cowardly and brutal, peculiarly unworthy of Englishmen, to say nothing of Christianity, which teaches us to do as we would be done by. In this business we are the sheep and you the wolves. We will preserve our character, and hope you will change yours.

"At all events, we return you blessings for curses, and pray that you may soon return to that industry and those sober manners for which the inhabitants of Birmingham were formerly distinguished.

"I am, your sincere well-wisher,

"J. PRITSTLEY.

London, July 19, 1791."

